

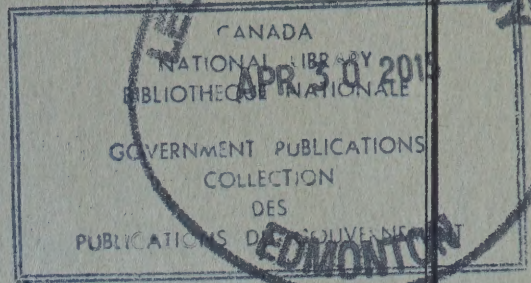
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Vital Stat. Div.



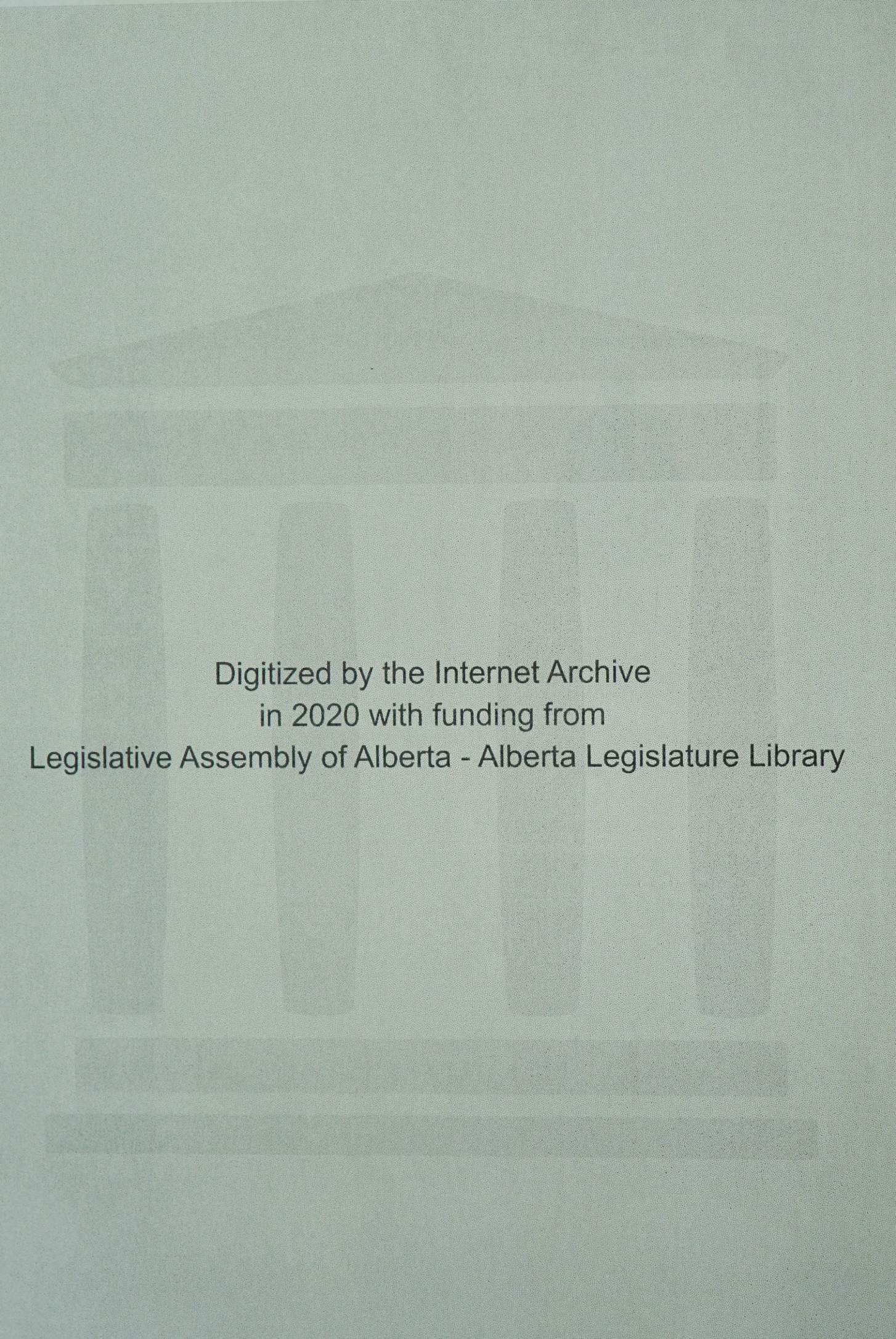
ANNUAL REPORT  
OF THE  
**Department of Public Health**  
PROVINCE OF ALBERTA  
INCLUDING  
**Vital Statistics Division**  
+ 1954

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON  
PRINTED BY A. SHNITKA, QUEEN'S PRINTER  
1956

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ANNUAL REPORT

OF THE

**Department of Public Health**

PROVINCE OF ALBERTA

INCLUDING

**Vital Statistics Division**

**1954**

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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1956





December 31, 1955.

TO HIS HONOUR,

J. J. BOWLEN,

*Lieutenant Governor of the Province of Alberta.*

SIR:

I have the honour to transmit herewith, the Annual Report of the Department of Public Health for the year 1954.

I have the honour to be, Sir,

Your obedient Servant,

WALLACE WARREN CROSS, M.D.

*Minister of Health.*







December 31, 1955.

TO THE HONOURABLE DR. W. W. CROSS,

*Minister of Health,*

Administration Building, Edmonton, Alberta.

SIR:

I have the honour to submit herewith, the Thirty-Sixth  
Annual Report of the Department of Public Health.

I have the honour to be, Sir,

Your obedient Servant,

A. SOMERVILLE, B.A., M.D., D.P.H.,

*Deputy Minister.*







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THIRTY-SIXTH ANNUAL REPORT OF THE  
PROVINCIAL DEPARTMENT OF PUBLIC HEALTH

*Divisions:*

1. General Administration
2. Communicable Diseases
3. Health Units
4. Entomology
5. Cancer Services
6. Health Education
7. Nutrition Services
8. Municipal Nursing
9. Social Hygiene
10. Provincial Laboratories
11. Sanitary Engineering
12. Hospital and Medical Services
13. Nursing Aides School
14. Civil Service Nurse
15. Arthritis Services
16. Cerebral Palsy Clinics
17. Tuberculosis Control —  
Sanatoria: Aberhart Memorial Sanatorium, Edmonton  
Baker Memorial Sanatorium, Calgary
18. Mental Health —  
Institutions: Provincial Mental Hospital, Ponoka  
Provincial Auxiliary Mental Hospital,  
Claresholm  
Provincial Auxiliary Mental Hospital,  
Raymond  
Provincial Mental Institute, Edmonton  
Provincial Training School, Red Deer  
Rosehaven, Camrose  
Guidance Clinics  
Eugenics Board
19. Vital Statistics

A report of the work of each of these Divisions is included herewith, except Vital Statistics which issues a separate report.



## PROVINCIAL BOARD OF HEALTH

Eight meetings of the Provincial Board of Health were held during the year.

There was no change in the membership of the Board during the year. Dr. A. Somerville, Provincial Medical Officer of Health, was Chairman, and Mr. H. L. Hogge, Provincial Sanitary Engineer, and Dr. R. D. Stuart, Provincial Bacteriologist, were members.

## REGULATIONS PASSED OR AMENDED DURING THE YEAR

O.C. 811-54. Amendments to Provincial Board of Health Regulations relating to Bakeshops. The regulations were re-numbered to agree with other Provincial Board of Health Regulations. A change was made in the regulation concerning provision of washrooms so that separate washrooms are not required for each sex where less than 9 persons are employed. This is now in agreement with the Regulations regarding Plumbing and Drainage.

O.C. 824-54 and O.C. 1052-54 were amendments to Provincial Board of Health Regulations for the Control of Communicable Diseases. The list of diseases declared to be communicable was added to by the inclusion of pin worms. This condition was also included in the list of diseases which may require a child's exclusion from school. Tetanus was added to the list of diseases notifiable to the local health authority. Changes were made in the requirements of the regulations in respect to notification, placarding, isolation and quarantine for poliomyelitis and tuberculosis. In the former, quarantine of all contacts under 18 years and contacts over 18 years engaged as food handlers or in contact with children is now required. In the latter, it is provided that persons suffering from tuberculosis in a communicable form and who have been ordered to hospitals or sanatoria by the Provincial Board of Health must remain until discharged by the superintendent.

O.C. 990-54 and O.C. 991-54. Amendments to Provincial Board of Health Regulations governing Mattresses and Upholstering and governing Wiping Bags and Cotton Waste. These amendments renumbered the regulations to agree with other Provincial Board of Health Regulations.

During the year a number of cases of persons who were suffering from tuberculosis in an infectious form and who were refusing treatment were drawn to the attention of the Board. After proper investigation of the cases, the Board issued twenty orders covering the removal of such persons to hospitals and sanatoria for treatment under the provisions of the Communicable Disease Regulations.

Early in the year, tastes and odors were noted in the North Saskatchewan River below the Greater Edmonton area. These tastes and odors affected the drinking water of communities using the river as a source of drinking water. The control of pollution in the river was the subject of meetings held under the sponsorship of the Board on two occasions. These meetings

were attended by representatives of the City and other municipalities concerned, by representatives of industries using the river for water supply or waste disposal, by representatives of other Departments of the Provincial Government, and by representatives of the Department of National Health and Welfare. The Department of National Health and Welfare co-operated with the Provincial Department of Public Health in a program to determine the causes of the condition. From the information obtained, it was possible for the Board to issue instructions to correct the condition. The North Saskatchewan River received continuing attention throughout the year through the stream sanitation program of the Division of Sanitary Engineering. Additional information obtained from these surveys enabled the Board to issue instructions to the City and industries using the river for disposal of wastes so that the combined effect would not be serious pollution.

The Board was asked to consider problems in the Town of Sylvan Lake in reference to the lack of a sanitary sewerage system. Following investigation, the Board directed the Town to proceed with the installation of a sanitary sewerage system.

Some other matters which received attention during the meetings of the Board were qualifications of sanitary inspectors, the regulation of cemeteries, control of sanitary conditions in trailer coach parks, air pollution and restaurant regulations. In these and other matters, the Board gave its guidance and assistance to the various Divisions of the Department and to Local Boards of Health so that activities could be co-related into a broad program designed to improve the health of the people of the province.

#### LEGISLATION PASSED DURING THE YEAR

##### *Health Unit Act Amendment Act (Chapter 38)*

The Health Unit Act, being chapter 38 of the Statutes of Alberta, 1951, is amended by this Act.

Section 7 is amended. Subsection (1) is amended to increase the permitted allowance for meetings from \$8.00 to \$10.00 per meeting day. Subsection (2), which prescribed that certain resolutions of the board dealing with expenses of the members should receive the approval of the Minister, is repealed.

Section 15 is amended. This amendment provides that the Department of Public Health will pay sixty per cent of all approved operating costs of a health unit where before the Department was not required to pay toward furnishings and some other costs.

Section 16 is amended. Subsection (3) is replaced by a new subsection that provides that population figures may be based on the figures used for the purposes of The Municipal Assistance Act, 1951, where, before, the figures could only be based on the Dominion census of 1951 or a later similar census.

Section 17 is replaced by a new section. This section now provides for the appointment of an official auditor for each health unit, the auditing of the unit's accounts and a reporting



thereon. Overpayments by any of the contributories to the health unit when disclosed by the auditor will be adjusted in the current contributions to the health unit. A board is required to submit financial disbursement estimates quarterly to the Minister. The accounts of a health unit are to be open for inspection by Department of Public Health officials.

This Act came into force on April 8, 1954.

*Hospitalization and Treatment Services Act Amendment Act  
(Chapter 41)*

This Act amends The Hospitalization and Treatment Services Act, being chapter 56 of the Statutes of Alberta, 1953.

Section 9 is amended. This section authorizes the Minister to pay grants to approved schools of nursing.

Section 12 is amended. A new clause (e) sets out expressly the power of the Lieutenant Governor in Council to make regulations providing for the manner in which hospitalization and treatment services costs will be made, and the persons to whom payments may be made, as section 6 by its reference to agreements creates an ambiguity in this regard to the administration of this Act.

This Act came into force on March 30, 1954.

*Hospitalization of City Residents Act Amendment Act  
(Chapter 42)*

This Act amends The Hospitalization of City Residents Act, being chapter 29 of the Statutes of Alberta, 1950.

Section 3, subsection (1) is amended to extend the ceiling of eight dollars on the minimum hospital tax to ten dollars.

This Act came into force on April 8, 1954.

*Hospitals Act Amendment Act (Chapter 43)*

This Act amends The Hospitals Act, being chapter 184 of the Revised Statutes of Alberta, 1942.

Section 2 is amended to define "local hospital".

Section 3, subsection (1) is amended to clarify the meaning of approved hospitals where that term appears in this and other Acts. The meaning is presently obscure.

Section 3b, subsection (2), clause (c) is amended to permit the benefit of a hospitalization contract to become available sixty days after the contract is entered into. At present, benefits under such contracts become available on the 1st of January or the 1st of July. The new provision is additional to the old requirement which may still be retained if desired.

Section 3c is replaced by a new section 3c. The purpose of this amendment is to permit local authorities or municipal hospital district boards to be paid the daily hospitalization grant where the patient is hospitalized as an emergency patient or as a referred patient in an active treatment hospital, and where the local authority or board pays the hospitalization account

without restricting the hospitalization period of the patient in the active treatment hospital. Previously, this permission extended only to such patients as were hospitalized in an approved hospital which, of necessity, meant in a provincial hospital receiving a hospital grant under section 3. The section also has been revised to set out more clearly the circumstances in which it applies.

A new section 3n has been added to authorize the Minister to reimburse a local authority or municipal hospital district board up to half of the amount paid by the authority or board to a patient who had been hospitalized in a local hospital with which the authority or board has not been able to obtain a hospitalization agreement. This authorization is qualified in that the amount of the reimbursement cannot be greater than the amount of reimbursement if an approved agreement had been in force with the local hospital.

Section 5 is amended. The amendment to subsection (9) provides that the residence of a baby born in a hospital shall for the purposes of this Act be deemed a resident of its mother's municipality. Previously, the residence of such a baby was determined by its parents' residence. Subsection (10) is amended to correct a reference to an Act and to add The City Act to the municipal Acts mentioned in this section.

Section 6, subsection (9) is amended for the same purpose as subsection (10) of section (5).

Section 7, subsection (2) is amended for the purpose of having this section conform with the proviso in subsection (4) of section 6 which was added in 1944 and amended in 1952.

This Act came into force on April 8, 1954.

#### *Municipal Hospitals Act Amendment Act (Chapter 71)*

This Act amends The Municipal Hospitals Act, being chapter 185 of the Revised Statutes of Alberta, 1942.

Section 11, subsection (1), clause (i) is amended. The purpose of this amendment is to fix a maximum of ten dollars on the minimum tax to be levied upon ratepayers within the hospital district instead of a minimum as was previously provided.

This Act came into force on April 8, 1954.

#### *Nursing Service Act Amendment Act (Chapter 73)*

This Act amends The Nursing Service Act, being chapter 45 of the Statutes of Alberta, 1950.

Section 2, the definition section, is amended to define therein "contributing council" and "local authority".

Section 3 is amended by the addition of a new subsection (3), which provides for the case where a health unit under The Health Unit Act has within the unit an area being served by a municipal nurse employed under an agreement under this Act. In that case



by agreement the administration and operation of that nursing service may be transferred to the control of the health unit board.

Section 4 is amended by substituting a new section. This section provides that the budget for the nursing service be prepared by the local authority in the nursing service area, that it be submitted to the Minister for approval, and that the Department of Health may estimate its share of the budget and pay the same in quarterly instalments.

Section 5 is amended by substituting a new section. This section now provides for the appointment of an official auditor who shall prepare a financial statement upon which all contributing parties will base their shares of the cost of the service.

The books of the nursing service are open to inspection by officials of the Department of Health.

Section 5a is added. Subsection (1) provides for the type and extent of the costs for which the Department of Health is responsible and subsection (2) for those for which the contributing councils are responsible.

This Act came into force on April 8, 1954.

*Public Health Act Amendment Act (Chapter 83)*

This Act amends The Public Health Act, being chapter 183 of the Revised Statutes of Alberta, 1942.

Section 22, subsection (3) is amended. Previously by this section it was provided that the local medical officer of health was the executive officer of the local board of health. This provision is repealed.

Section 23a made provision for the case where an area of a health district was included in a full-time health unit. With the present Health Unit Act now in force this section becomes superfluous and is removed.

This Act came into force on March 30, 1954.

DEPARTMENT OF PUBLIC HEALTH  
REVENUE AND EXPENDITURE FOR FISCAL YEAR ENDING  
MARCH 31, 1955

		Salaries	Expenses	Revenue
601	Administration - General -----	\$ 11,679.54	\$ 746.94	\$
602	Administration - General -----	58,166.88	2,917.30	192.95
618	Administration - Postage -----		6,179.21	
603	Hospital and Medical Services			
	Administration -----	54,258.98	14,702.78	60.00
	Grants and Services -----		9,365,096.64	
605-1	Communicable Diseases -----	6,508.78	79,016.42	
605-2	Sanitary Engineering -----	24,266.84	9,154.30	3,175.60
606	Municipal Nursing -----	7,625.18	133,451.41	71,328.67
607	Bureau of Vital Statistics -----	57,643.32	13,642.25	107,560.98
609	Insulin -----		10,029.44	
610	Social Hygiene -----	50,046.98	14,862.24	42,185.44
626	Public Health Laboratories -----		247,520.36	35,395.92
631	Poliomyelitis -----		1,095,134.43	
633	Cancer Services -----	128,977.50	433,514.01	320,827.23
638	Civil Service Nurse -----	4,755.58	1,041.95	
639	Public Health Education -----	11,672.46	3,397.81	
640	Entomology -----	8,272.76	4,183.02	
641	Health Units -----	7,021.54	426,674.61	361,345.31
643	Nursing Aides Act -----	5,348.54	1,234.60	1,421.00
645	Health Services - Extension			
	Programme -----	370,785.93	520,756.43	872,895.20
646	Hospital Construction -----		983,474.44	737,886.33
648	Grants for Public Health Services -----		63,947.98	
649	Alcoholism Foundation of Alberta -----		100,000.00	
651	Cerebral Palsy Clinics -----	33,505.96	7,442.19	24,155.00
652	Arthritis Services -----	10,575.71	9,749.64	
DIVISION OF MENTAL HEALTH				
612-1 }	Provincial Mental Institute, Edmonton	902,437.69	392,172.32	295,024.64
613-2 }	Provincial Training School, Red Deer	556,673.22	232,637.22	142,014.51
612-3 }	Provincial Mental Hospital, Ponoka	1,061,433.97	490,642.84	337,365.09
613-1 }				
612-4	Provincial Auxiliary Mental Hospital, Claresholm -----	48,286.47	27,090.60	19,112.05
612-5	Provincial Auxiliary Mental Hospital, Raymond -----	66,965.58	26,527.07	23,265.84
622	Director's Office and Guidance Clinics -----	31,081.90	12,912.32	
650	Rosehaven, Camrose -----	250,088.75	105,923.42	254,676.38
DIVISION OF TUBERCULOSIS CONTROL				
604-1	Director's Office and Clinics -----	26,846.50	49,046.30	428,553.90
604-2	Baker Memorial Sanatorium, Calgary -----	554,361.81	254,562.75	226,847.45
604-3	Aberhart Memorial Sanatorium, Edmonton -----	536,720.71	181,655.84	175,774.79
		<u>\$4,886,009.08</u>	<u>\$15,324,050.98</u>	<u>\$4,481,064.28</u>
Total Expenditures - Public Health Department -----				\$20,210,059.16
Less: Public Health Revenue -----				4,481,064.28
Net Expenditure - Department of Public Health -----				<u>\$15,728,994.88</u>

### VITAL STATISTICS

Vital Statistics registered during the year are as follows:

Births -----	33,593
Marriages -----	9,960
Deaths -----	7,520

In all cases where rates are shown, such rates are based on a population of 1,039,000, this being the estimated population figure for 1954. In the following table, the number of births and the birth rate, the number of marriages and the marriage rate, and the number of deaths and the death rate are shown for each of the years from 1949 to 1954:

Year	No. of Births	Birth Rate	No. of Marriages	Marriage Rate	No. of Deaths	Death Rate
1949 -----	24,935	28.7	9,037	10.4	7,083	8.2
1950 -----	25,625	28.7	9,294	10.4	6,856	7.7
1951 -----	27,003	28.7	9,305	9.9	7,167	7.6
1952 -----	29,105	30.0	9,514	9.8	7,345	7.6
1953 -----	31,376	31.3	10,126	10.1	7,646	7.6
1954 -----	33,593	32.3	9,960	9.6	7,520	7.2



The general death rate in Alberta at 7.2 per thousand can be considered good. There have, however, been some changes in the causes of death which call for thought. Deaths from tuberculosis continue to decline although the number of new active cases discovered is declining more slowly. For the first time we are beginning to see that we have a superfluity of sanatorium beds. In 1952 poliomyelitis first appeared among the first ten by taking tenth place with 79 deaths. In 1953 it superseded tuberculosis, suicides and diabetes mellitus to reach seventh place with a total of 108 deaths. In 1954 the deaths were 28.

The big three still retain their position with diseases of the heart, cancer and cerebral hemorrhage in first, second and third place.

In maternal deaths (0.3) and infant deaths (26) Alberta has a better average than the rate in Canada. However, better infant death rates exist in other countries to show that our job is incomplete.

More detailed information is available in the report of the Vital Statistics Division.

#### *General Health Conditions*

The general death rate in Alberta has been very steady at about 7.6 for a number of years. Alberta's population is aging steadily and it is quite probable that we are reaching the stage where any further material improvement is unlikely.

During 1952 and 1953 Alberta had the two worst epidemics of poliomyelitis in its history. In 1954 the incidence was lower and a substantial number of the cases occurring in January and February were really a carry-over of the 1953 epidemic. This high incidence of poliomyelitis in the past few years has made it the major communicable disease in place of tuberculosis. It had replaced this disease as a cause of death and as a cause of permanent disability and has placed a heavy burden on the hospital services under The Poliomyelitis Sufferers Act. However, for 1954 the falling rate of poliomyelitis has permitted tuberculosis to resume its former position.

During 1954 the use of radioactive cobalt was introduced as part of the treatment service at the Edmonton Cancer Clinic. In the previous year an addition had been provided at the clinic building. This additional space provides for a "Cobalt Bomb". The bomb itself was presented to the cancer service by Mervyn A. Dutton and Reginald Jennings of Calgary. Following its installation this source of radiation has been in continuous use, filling an important place in the treatment service.

#### *Salk Vaccine*

In 1954 Alberta assisted in the first large-scale experiment with anti-polio vaccine. The material which was provided by the National Foundation for Infantile Paralysis (U.S.A.) was supplied to Local Boards of Health and Rural Health Units. Following the pattern which was in vogue at that time three doses were given to each child at intervals of one week. There were 16,167 children inoculated, half of them receiving vaccine

and half receiving an imitation dose. This experiment called for the keeping of accurate and detailed records, thus materially increasing the volume of work in the local health services. The information thus obtained was supplied to the evaluation committee at Ann Arbor and became part of the material used in assessing the vaccine.

Deaths due to accident have retained the fourth place among the causes of death in Alberta. This is much too high for a cause that is fundamentally preventable. Of a total of 624 accidental deaths, motor vehicles tops the list with 210. It might be noted that the motor vehicle deaths have dropped from 263 in 1953 to 210 in 1954.

### *Local Health Services*

It is pleasing to see the continued expansion of Health Units throughout rural Alberta. During 1954 one new Health Unit was established, namely, the Jasper Place Health Unit at Jasper Place, Alberta. This brings the total of rural Health Units to 16 covering a population of about 423,118 people. Further information can be found in the report of the Division.

Detailed reports of the work of the various Divisions of this Department will be found in the reports of those Divisions.

I would like to record here my appreciation of the co-operation received from the Directors of the various Divisions of the Department and my sincere thanks for the excellent work done by the various employees.

Respectfully submitted,

A. SOMERVILLE, B.A., M.D., D.P.H.,

*Deputy Minister of Health.*



## Division of Communicable Diseases

C. E. ANDERSON, M.D., *Director*

The work of the Divisions falls under two headings:

1. Communicable Disease Control.
2. Supervision of Health Units.

### 1. *Communicable Diseases*

It is the duty of this Division to supervise the control of communicable disease throughout the Province.

Ascertainment is the first step in control. Notification is required by every doctor treating a case listed in the schedule of communicable diseases. The notification is directed to the Local Health Authority where one exists; otherwise, directly to the Provincial Health Authority.

On receipt of notification the cases are recorded and a weekly return of the incidence is sent to the Federal Government, to all principal local health authorities in the Province, and to neighbouring provinces and the nearby States of the United States. Similar returns are received, and by this means, Health Departments can be kept aware of what is happening in adjacent areas. The value of this in controlling infectious diseases is that trends may be forecast. The statistics also assist in assessing the value of measures taken to control.

### DISTRIBUTION OF BIOLOGICAL PRODUCTS

This Division is in charge of the distribution of vaccines and other materials used for immunization.

Immunization is carried out as a routine against Diphtheria, Whooping Cough, Smallpox and Tetanus, and to protect special groups at risk against Typhoid and Paratyphoid, Rocky Mountain Spotted Fever, Rabies and Measles. During the year, as in the past, Immune Serum Globulin was given as an immunizing agent to immediate contacts of poliomyelitis.

The Provincial Laboratory stores the various immunizing agents and dispenses them to physicians throughout the Province on request of the physicians. There is also maintained at some of the municipal hospitals in outlying areas, a supply which is distributed on demand; this is so that the material may be readily available where, due to road and other conditions, delay in distribution might be encountered.

The distribution of Immune Serum Globulin is controlled by this Division. During the year 34,125 cc's. were sent out to Health Officers and physicians. This material is provided free.

The total cost of the programme of distribution of Immune Serum Globulin and Biologicals during 1954 was \$87,012.53. Of this amount, \$10,186.00 was spent for purchase of Immune Serum Globulin.

### POLIOMYELITIS

The incidence of poliomyelitis was much less this year than last. There were 550 cases reported with 31 deaths. While this

is a comparatively high incidence, it is much less than last year with 1,458 cases and 111 deaths.

There was a much smoother routine in the handling of actual cases, this being due to careful planning based on past experience. It was not found necessary for the Provincial Board of Health to order any restriction on the activities of children such as exclusion from swimming pools, theatres and other public gatherings; nor was there any closure of schools.

### POLIOMYELITIS SURVEY

Early in 1954 a small team under the direction of Dr. E. S. Orford Smith set out to make a study of the epidemiology of poliomyelitis with a view to assisting the Provincial Board of Health to prescribe sound control measures in the event that Alberta should ever be threatened by another epidemic like that of 1953. The work of this team consisted of three main parts:

- (a) a general epidemiological survey;
- (b) a special study of a few particular outbreaks;
- (c) an investigation into the protective value of gamma globulin.

In the general epidemiological survey a total of 1,437 poliomyelitis cases were individually followed up out of the 1,631 known cases which occurred during the epidemic year between the 1st of April 1953 and the 31st of March 1954. Contact with another known case was established in 17.5% of the cases studied, with a suspected case in 25%, and with a particular suspected carrier in 2%. Droplet or airborne infection was considered the only possible method of spread in 58.5% of the cases, food-borne infection the only explanation in 0.5%, while more than one mode of transmission was possible in 30%.

Among the particular outbreaks studied was a localized epidemic which occurred at Fort Vermilion in the middle of winter and an outbreak which originated from a Bible Camp at Pigeon Lake at the height of summer. These special studies served to indicate that poliomyelitis at any time of year is transmitted by direct personal contact along narrow channels.

The value of gamma globulin was assessed by comparing the incidence of poliomyelitis among intimate contacts who received it with the incidence among those who did not. It was found that an intimate contact who did not have gamma globulin was about three times as likely to contract the disease as an intimate contact who did have it.

The short duration of the protective effect of gamma globulin, however, and the need for a more lasting form of immunity led, in May, to Alberta's acceptance of an offer of some poliomyelitis vaccine from the National Foundation for Infantile Paralysis in New York. Dr. Orford Smith's team was thus suddenly involved in the organization of a large-scale field trial which extended to most parts of the Province. The immense amount of follow-up work entailed in this trial likewise became the team's responsibility. The actual evaluation of the vaccine was done at the University of Michigan. The results of the evaluation were



released in April 1955 and in summary are: "the vaccination was 80 - 90% effective against paralytic poliomyelitis; that it was 60 - 70% effective against disease caused by Type I virus and 90% or more effective against that of Type II and Type III virus."

SALK VACCINE FIELD TRIALS

In the Field Trials with the Salk Vaccine 16,167 children received the three doses. Half of these children received the vaccine, and the other half the "placebo" or control solution.

RABIES

The prevalence of this disease in animals continued during the year 1954. There were reported fifty positive cases, confirmed by laboratory findings, plus an additional ten cases clinically all diagnosed. The location of all cases was in an area north of Westlock, about half in the Municipal District of Athabasca and some in the Peace River area.

The programme of the Rabies Control Committee continues, and the committee is satisfied and gratified with the results being obtained.

No case of human rabies was reported. There were several reports of people being bitten, or otherwise exposed to risk by the exposure of scratches to saliva of infected animals.

In every case where anti-rabies vaccine was requested, it was dispatched at the earliest possible moment, or in many cases was at hand at the Health Units or in the possession of the Local Health Authority. Forty-five treatment packages of anti-rabies vaccine were sent out during the year. This Division has record with particulars in fifteen cases where the vaccine was used.

TABLE 1  
NUMBER OF CASES OF COMMUNICABLE DISEASES  
REPORTED IN THE YEARS  
1953 and 1954

	1953	1954		1953	1954
Acute Anterior Poliomyelitis	1,399	550	Rubella	4,165	846
Diphtheria	28	35	Scarlet Fever and Septic Sore	—	—
Dysentery	53	88	Throat	2,173	1,363
Food Poisoning	84	3	Smallpox	—	—
Leprosy	1	—	Tetanus	—	—
Measles	7,260	3,769	Tuberculosis - Pulmonary	726	902
Meningitis	13	14	Tuberculosis - Non-pul.	104	76
Paratyphoid Fever	8	3	Typhoid Fever	9	5
Rocky Mountain Spotted Fever	—	—	Undulant Fever	2	3
			Whooping Cough	1,085	842

TABLE 2  
DEATHS ASCRIBED TO COMMUNICABLE DISEASES  
IN THE PROVINCE  
OF ALBERTA FOR THE YEARS  
1953 and 1954

Name of Disease	1953		1954	
	Total Deaths	Rate Per 100,000 of Population	Total Deaths	Rate Per 100,000 of Population
Acute Anterior Poliomyelitis and Polioencephalitis	109	10.9	31	3.0
Gastroenteritis and Colitis (except Diarrhoea of the Newborn)	47	4.6	69	6.7
Diphtheria	3	0.3	2	0.2
Influenza	33	3.3	14	1.4
Measles	8	0.8	6	0.6
Pneumonia	324	32.3	253	24.4
Scarlet Fever	3	0.3	0	0.0
Smallpox	0	0.0	0	0.0
Tuberculosis (Pulmonary)	51	5.1	45	4.3
Tuberculosis (Other)	17	1.7	18	1.7
Typhoid	1	0.1	1	0.1
Whooping Cough	12	1.2	7	0.7
Meningococcal Meningitis	13	1.3	8	0.8
Population of Alberta in 1953	1,002,000		Population of Alberta in 1954	1,039,000

TABLE 3.—COMMUNICABLE DISEASES REPORTED IN 1954 BY SEX, AGE AND MONTH OF REPORTING  
DIPHTHERIA

	SEX		MONTHS												AGES				TOTAL		
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19		20-over	Not stated
Edmonton	1	2							2					1			2	1		1	3
Urban	1	1				1											1				2
Rural	13	17			7	14		1					3	5		9	15	3	3	30	
TOTAL	15	20			8	15		3					4	5		12	16	3	4	35	
MEASLES																					
Calgary	596	579	6	7	7	7	34	22	22	13	33	298	420	306	29	361	774	2	9	1175	
Edmonton	107	112	4	14	13	8	21	19	6	9	3	3	14	106	22	84	102	3	7	219	
Lethbridge	31	24	4	2		1	3	15	23	7	45	82	105	167	1	29	21	8	2	55	
Urban	375	370	100	78	24	10	29	16	59	30	36	285	326	358	41	258	423	33	13	745	
Rural	828	747	210	83	45	42	27	40	35	88	117	668	865	937	80	364	1039	46	14	1575	
TOTAL	1937	1832	324	184	89	68	114	112	145	146	177	1096	173	173	173	1096	2359	46	45	3769	
RUBELLA																					
Calgary	23	20	3	17	4	2	7	5	3	2	3	7	4	3	3	15	23	2	13	43	
Edmonton	62	70	25	1	14	8	14	10	7	10	6	4	4	13	7	48	58	5	1	132	
Lethbridge	13	9	1	4	7	1	1	4	2	2	1	4	4	13	2	6	10	3	1	22	
Urban	105	101	5	18	43	28	26	17	28	14	8	5	10	15	33	53	98	16	6	206	
Rural	193	250	96	32	31	62	90	33	14	14	20	14	6	31	44	87	257	35	12	443	
TOTAL	396	450	130	68	96	107	138	69	54	31	37	30	24	62	89	209	446	61	31	846	
SCARLET FEVER																					
Calgary	174	155	27	65	75	55	27	26	13	2	6	14	6	13	1	80	224	8	16	329	
Edmonton	82	115	30	25	31	18	21	9	9	1	1	6	20	26	3	99	85	2	7	197	
Lethbridge	8	3	3	2	2	3	3	3	1							6	4		1	11	
Urban	68	89	21	24	40	36	17	3	2	1	1	3	5	4	3	48	87	7	5	157	
Rural	212	259	88	67	143	67	27	12	14	10	1	2	29	11	6	130	272	23	33	471	
TOTAL	544	621	169	183	291	179	92	50	39	14	9	25	60	54	13	363	672	40	62	1165	



PULMONARY TUBERCULOSIS

Calgary	94	80	13	23	22	18	15	10	9	10	15	10	15	14	1	7	6	7	146	7	174
Edmonton	62	47	15	12	4	8	3	11	11	5	10	12	12	6	---	---	1	4	87	17	109
Lethbridge	9	13	5	2	---	2	---	---	2	1	5	5	4	---	---	---	3	15	1	22	
Medicine Hat	8	7	3	3	1	2	---	1	2	---	2	2	2	---	---	---	1	12	2	15	
Urban	136	124	12	23	25	28	23	24	23	10	17	23	24	28	2	3	20	9	208	18	
Rural	139	183	22	24	15	32	22	23	21	15	28	28	45	47	5	21	29	19	229	19	
TOTAL	448	454	70	84	67	90	63	69	68	41	77	73	105	95	8	31	60	42	697	64	902

NON-PULMONARY TUBERCULOSIS

Calgary	3	12	---	2	1	1	2	2	2	3	3	---	3	3	---	---	---	1	14	---	15
Edmonton	10	10	---	1	2	---	2	4	3	---	---	2	---	---	---	3	---	15	4	2	20
Lethbridge	2	3	1	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	---	5
Medicine Hat	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0
Urban	6	5	3	1	1	6	1	2	1	---	3	---	2	1	---	---	5	8	1	11	11
Rural	12	13	4	5	4	10	10	8	1	7	11	2	6	9	1	4	6	3	14	1	25
TOTAL	33	43	4	5	4	10	10	8	7	---	11	2	6	9	1	7	6	55	4	76	76

SEPTIC SORE THROAT

Edmonton	8	5	1	3	---	---	---	---	---	---	6	---	2	1	---	1	6	3	13
Urban	---	2	---	---	---	---	---	---	---	---	---	---	1	---	---	---	1	---	2
Rural	88	95	20	21	89	8	3	5	6	6	5	8	12	15	4	39	66	2	183
TOTAL	96	102	21	24	89	8	3	5	6	6	12	8	15	---	5	40	73	5	198

POLIOMYELITIS

Calgary	17	19	9	---	3	1	2	1	5	6	1	6	1	6	3	5	10	6	12	---	36
Edmonton	33	45	12	2	3	2	---	3	3	15	17	12	7	2	---	17	29	5	23	---	78
Lethbridge	5	8	---	---	1	---	---	---	---	---	---	---	---	---	---	1	3	2	2	---	13
Urban	71	60	22	8	1	5	2	4	20	15	15	24	9	5	2	15	49	15	48	2	131
Rural	135	157	50	22	17	6	9	3	14	42	49	43	21	16	13	46	94	39	99	1	292
TOTAL	261	289	94	32	26	14	13	11	42	78	82	92	40	26	23	86	189	65	184	3	550





# MENINGITIS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Urban	8	5	1	3	4	6	2	8	3	13				
Rural	8	1	1	3	4	6	2	1	3	1				
TOTAL	8	6	2	7	8	12	4	9	6	14				

## FOOD POISONING

[illegible]

TABLE 4  
INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES FOR  
THE TEN-YEAR PERIOD:  
1945-1954

Date	Population	Total Cases	Total Deaths	Mortality Rate per 100,000 of population
DIPHTHERIA				
1945	826,000	53	9	1.1
1946	803,330	48	7	0.9
1947	822,000	86	7	0.9
1948	846,000	52	6	0.7
1949	871,000	59	12	1.4
1950	895,000	13	1	0.1
1951	939,501	2	1	0.1
1952	970,000	11	1	0.1
1953	1,002,000	28	3	0.3
1954	1,039,000	35	2	0.2
TYPHOID FEVER				
1945	826,000	20	2	0.2
1946	803,330	9	0	0.0
1947	822,000	17	1	0.1
1948	846,000	13	0	0.0
1949	871,000	13	1	0.1
1950	895,000	13	1	0.1
1951	939,501	37	0	0.0
1952	970,000	16	2	0.2
1953	1,002,000	9	1	0.1
1954	1,039,000	5	1	0.1
ACUTE ANTERIOR POLIOMYELITIS				
1945	826,000	19	0	0.0
1946	803,330	78	8	1.0
1947	822,000	84	7	0.9
1948	846,000	380	28	3.3
1949	871,000	127	9	1.0
1950	895,000	143	7	0.7
1951	939,501	84	2	0.2
1952	970,000	774	81	8.3
1953	1,002,000	1,399	109	10.9
1954	1,039,000	550	31	3.0
WHOPPING COUGH				
1945	826,000	694	43	5.2
1946	803,330	308	19	2.3
1947	822,000	972	9	1.1
1948	846,000	1,178	11	1.3
1949	871,000	98	5	0.6
1950	895,000	120	3	0.3
1951	939,501	827	7	0.7
1952	970,000	1,105	8	0.8
1953	1,002,000	1,085	12	1.2
1954	1,039,000	842	7	0.7
SCARLET FEVER				
1945	826,000	1,358	1	0.1
1946	803,330	482	1	0.1
1947	822,000	225	0	0.0
1948	846,000	248	0	0.0
1949	871,000	865	0	0.0
1950	895,000	2,309	0	0.0
1951	939,501	2,304	6	0.6
1952	970,000	3,829*	2	0.2
1953	1,002,000	2,173*	3	0.3
1954	1,039,000	1,363*	0	0.0
* Represents combined total of Scarlet Fever and Septic Sore Throat.				
SMALLPOX				
1945	826,000	0	0	0.0
1946	803,330	0	0	0.0
1947	822,000	0	0	0.0
1948	846,000	0	0	0.0
1949	871,000	0	0	0.0
1950	895,000	0	0	0.0
1951	939,501	0	0	0.0
1952	970,000	0	0	0.0
1953	1,002,000	0	0	0.0
1954	1,039,000	0	0	0.0



## 2. *Health Units*

This Division exercises administrative control over the Health Units.

Under the Public Health Act, public health is made the responsibility of local government agencies. Outside of the two major cities, no local government authority in the Province is large enough to maintain its own public health program. Grouping of local government agencies into health units makes it possible for the group to receive the benefit of a well organized service. The Provincial government contributes 60% of an approved budget; the local contributing authorities contribute 40%. The area designated as a health unit is divided into wards, each ward is represented by one member from one of the contributing councils in the ward. This constitutes the board of governing body of the health unit.

This organization brings an efficient public health service within the reach of everyone in the Province with the exception of those living in the most sparsely settled areas, thus making it possible for the resident of the area served to receive a service equal to the service they would enjoy in the major cities.

Included in the services provided are:

1. The control of communicable diseases.
2. Tuberculosis control.
3. Sanitation.
4. Pre and Post Natal care.
5. School Health.
6. Mental Health.
7. Nutritional advice.
8. Health Education.
9. Dental Service for Children.

In addition to the above, the Health Unit acts as the serum centre, storing and distributing the sera and vaccines supplied by the Provincial Health Department.

The units are staffed by a medical officer, nurses, sanitary inspectors and steno-technicians. The number authorized depends on the number of population served. The medical officer of health acts as the director of the Health Unit. If the contributing councils so request, the Board of Health Unit acts as local Board of Health for the contributing council, and appoint their medical officer as Medical Officer of Health.

There are sixteen full-time health units in operation, namely:

- Drumheller Health Unit No. 8.
- Foothills Health Unit No. 5.
- Red Deer Health Unit No. 9.
- Minburn-Vermilion Health Unit No. 12.
- Leduc-Strathcona Health Unit No. 13.
- Stony Plain-Lac Ste. Anne Health Unit No. 17.
- Sturgeon Health Unit No. 14.

Mountain View Health Unit No. 7.  
 Bow Valley Health Unit No. 6  
 Alberta East Central Health Unit No. 10.  
 Medicine Hat Health Unit No. 1.  
 Athabasca Health Unit No. 18.  
 Vegreville Health Unit No. 15.  
 Grande Prairie Health Unit No. 20.  
 Barons-Eureka Health Unit No. 2.  
 Jasper Place Health Unit No. 16.

The Jasper Place Health Unit was established with effective date of April 1st, 1954; health unit service, however, did not get under way until the month of June.

The Macleod-Pincher Creek Health Unit operates with partial staff consisting of two nurses only.

There have been several staff changes within the various units during 1954. One medical officer left the Province, one resigned to enter the Federal service, one to go into private practice, and one transferred to another Health Unit within the Province.

Collectively, the units employ the following staff:

Medical Officers of Health -----	14
Public Health Nurses -----	65
Sanitary Inspectors -----	18
Steno-Technicians -----	19
Secretary-Treasurers -----	16

#### *Special Programme*

In the Spring of 1954 the Province accepted an offer from the National Foundation for Infantile Paralysis of Salk Vaccine for administration on an experimental basis. All of the Health Units with the exception of one, co-operated by participation in this Vaccine Trial and the extensive follow-up procedure which the experiment necessitated.



## DIVISION OF ENTOMOLOGY

J. H. BROWN, B.Sc., M.Sc., F.A.P.H.A., *Director*

The Division of Entomology deals with insect-borne disease, with particular attention being paid to Rocky Mountain Spotted Fever and Colorado Tick Fever (serious human diseases carried by ticks), Sylvatic Plague (a human disease carried by rats, gophers and fleas), Tularaemia (commonly called Deer-fly Fever) and Encephalomyelitis (a disease transmitted by mosquitoes).

Other insect problems, such as fly and mosquito control, insecticides, insect infestations in foodstuffs and insect pests of institutions, fall within the work of the Division. Furthermore, a considerable amount of time is devoted to determining the distribution of insects, ticks, and mites that are involved in the transmission of human diseases.

### *Tick Survey*

Rocky Mountain Spotted Fever Ticks are well established in Alberta. Their known and supposed range embraces all of that part of Alberta, south of a line from Calgary east to Empress, and thence north and west in the foothills and mountains north to Fort St. John, B.C.

A great amount of economic activity, including hydro-power development, oil surveying and drilling, and pulp and paper development is now being undertaken in the Foothills and Mountain Areas. As a large number of persons are employed in these activities, it is necessary that a knowledge of the insect-borne diseases present in the areas be obtained so that the necessary Public Health steps for the protection of human health and welfare can be undertaken.

**1. Rocky Mountain Spotted Fever:** This is a seasonal disease occurring from April to September, but being most common during June and July. It is transmitted to man through the bite of an infected tick. The fatality rate in Alberta was 80% but this has been decreased by vaccination programs and the use of the newer antibiotics. In Alberta it is transmitted by the Spotted Fever Tick and the Rabbit Tick.

(a) **Cases:** There were no cases of Rocky Mountain Spotted Fever in 1954.

(b) **Vaccinations:** The use of Rocky Mountain Spotted Fever vaccine as a protection against Spotted Fever is well-established in Alberta. It is given in three 1-cc doses one week apart and confers 100% protection for one year.

During 1954 a total of 1,951 doses were given. Of these 425 were given at Manyberries, 245 at Redcliff, 189 at Medicine Hat, 35 at Elkwater and Thelma, and 1,057 at Ralston.

A large number of drilling and seismographic crews secured vaccine during 1954 for the protection of their personnel working in the foothills and mountain areas.

2. **Collections:** During 1954 a total of 1,673 ticks were collected. Of these 442 were taken from small wild animals and 1,231 were collected from grass by means of a cloth flag.

3. **Infected Ticks:** The following table shows the collections of ticks in 1954 that were positive for Spotted Fever:

**Dermacentor andersoni**

Disease	Collections	Ticks	Place
R.M.S.F. -----	6	514	West of Calgary.
R.M.S.F. -----	1	8	Brooks.
R.M.S.F. -----	1	26	Kananaskis Highway.
	8	548	

**Haemaphysalis leporis-palustris**

Disease	Collections	Ticks	Place
R.M.S.F. -----	2	192	Brooks.

The finding of Spotted Fever infection in *Haemaphysalis leporis-palustris* (The Rabbit Tick) at Brooks is the first record of Spotted Fever in this species in Canada.

4. **Colorado Tick Fever:** The first record of Colorado Tick Fever in Canada was made in 1954 when one lot totaling 30 ticks collected west of Calgary on June 12, 1954, were found to be infected. The determination of the infection in the ticks was made by Dr. C. L. Larson, Director, Rocky Mountain Laboratory, Hamilton, Montana.

Colorado Tick Fever in man is caused by the bite of infected ticks. It is characterized by a very sudden onset of chills, headache, and fever 4 to 5 days following the tick bite. It can be confused with dengue or influenza. Determination is made on the basis of complement-fixation tests, using 8 to 10 cc. of blood.

At present there is no treatment other than supportive treatment in hospital.

**Dermacentor andersoni**

Disease	Collections	Ticks	Place
Colorado Tick Fever ----	1	30	Brooks.

*Plague Survey*

No human cases have occurred in Alberta in recent years. However, the presence of the disease in gophers and fleas constitutes a serious health hazard.

2. **Distribution:** Two very large areas of Plague infection, one centering on Hanna and the other on Brooks, are present in Alberta. In both of these areas Plague-infected gophers and Plague-infected fleas are present in large numbers. The Plague situation in the Brooks district is potentially dangerous as the disease is spreading amongst the gophers and beginning to invade



thickly settled areas. There are indications that the "pallid vole" (a small field mouse) is also carrying the infection.

3. **Collections:** During the course of the Plague Survey in 1954, 40 collections were made consisting of 351 animals, of which 293 were shot and 58 trapped. A total of 929 fleas and 20 tissue specimens, mostly from the Prairie Gopher, were recovered and submitted to the laboratory for bacteriological examination. No positives were recovered.

### *Tularaemia*

1. **Tularaemia in Nature:** Tularaemia infection in Alberta is known to be present in cats, fleas, deer flies, field mice, gophers, gulls, mice, mink, muskrat, rabbits, sheep, skunks, swine and ticks.

2. **Collections:** No positives were reported, but all the 1954 material has not yet been examined.

### *Fly Control*

1. **Myiasis:** Myiasis is a condition wherein Fly Maggots invade animal tissue and set up serious complications. There were no cases of Myiasis in 1954.

2. **Lethbridge Fly Control District:** The fly control program was very successful, with the benefits being received by the towns, villages and dairy farmers participating far outweighing the actual cost. It is anticipated that the program will become an integral part of the basic sanitation program in that area.

3. **Camrose Fly Control:** During the summer of 1953 the town of Camrose became interested in a Fly Control Program. In order to achieve maximum results in the short time available it was recommended that the whole town be "fogged" by an insecticide. A commercial pest control firm was engaged and good results were obtained.

During 1954 the Town Council purchased a "fogging" machine and has had excellent results.

### *Mosquito Control*

1. **Edmonton:** A partial control program was undertaken but due to the continuous wet weather, it's efficiency could not be evaluated.

2. **Medicine Hat:** The City Council and Local Medical Officer of Health are very interested in starting a control program within the City limits.

3. **In Irrigated Districts:** The mosquito problem in irrigated districts is directly connected with the poor use of water. Any control measures proposed would have to be developed in conjunction with the management of the district.

4. **Number of Species Present:** To date 31 species of mosquitoes are known to be present; six of these are transmitters of **Equine encephalomyelitis**. Considerable effort is being devoted to determining the distribution of **Culex tarsalis**, which is of considerable importance in the transmission of encephalomyelitis.

*Encephalomyelitis*

1. **Distribution:** In Alberta indications of the virus have been demonstrated in such animals as horses, prairie gophers and small sparrow-like birds.
2. **Mosquitoes:** Six species capable of transmitting encephalitis are present in Alberta, with **Culex tarsalis** (which is a common mosquito), being the most important transmitting agent. The distribution of the mosquitoes involved is being determined.

*Schistosomiasis*

Schistosome dermatitis is commonly called "swimmers itch." The cause of itching is the penetrating of the skin by a small forked-tailed parasite (cecariae). The intermediate hosts are ducks and snails.

*Mycology*

**Description:** The laboratory work in Mycology is done by Dr. Silver Keeping, Provincial Mycologist at the Provincial Laboratory of Public Health, while the material, mainly sections of lung, liver, and spleen from small rodents, (such as field mice), is collected by the Field Crew of this Division.

The organisms involved are Fungi (mould-like growths) and it has been demonstrated that they are well established in Alberta.

*Laboratory*

1. **Insect Collection:** Good progress is being made in arranging the collection of insects and ticks injurious to human health.
2. **Insect Infestations in Foodstuffs:** The infestation of foodstuffs, particularly flour, rolled oats, dry cereals, raisins, currants, nuts, etc., with insects has become a serious problem and complaints are constantly received from purchasers of such infested materials. Representations were made to the Department of National Health and Welfare and it is understood that the Food and Drug Inspectors have now become more active in this work. This is a very worthwhile move as the Dominion Inspectors can now deal with infested material originating outside Alberta.
3. **Vaporizers:** Vaporizers are mechanical devices for releasing the fumes of Lindane and other insecticides by means of electrical heating elements. Representations were made to the Pesticide Division of the Department of National Health and Welfare for regulations which came into effect during 1954.
4. **Insecticides:** This Division has always maintained that there is no **SAFE** insecticide, but that all insecticides can be used **SAFELY**. However, during the past years an enormous number of chemical insecticides have appeared on the market. The majority of the chemical insecticides are toxic to man and some of them—particularly those that belong in the "Nerve Gas" group, are extremely dangerous. To give some protection in the event of poisoning, a publication on "Antidotes for Pesticides" has been prepared for distribution to Physicians, District Nurses and Hospitals.

*General*

The usual procedure of keeping the Provincial, City, Health Unit and Liquor Board Inspectors informed on the latest methods for control of pest insects was continued with gratifying results.

The usual Lectures to Medical Students, Public Health Nurses, Nurses in Training and Undergraduates in Home Economics were given, and in some cases, expanded.

*Educational Work*

The usual educational work in regard to the control of insect-borne diseases was carried out by means of radio, motion pictures, newspapers and lectures.

During 1954, two papers were published, and one paper was mimeographed.

1. The Mosquito Problem in Relation to Irrigation Developments in Alberta—by J. H. Brown, M.Sc., Canadian Journal of Public Health, 45 (3): 93-99. 1954.
2. "Antidotes for Pesticides"—by J. H. Brown, M.Sc., Alberta Medical Bulletin, November 15, 1954.
3. A Physicians Guide to Tick-borne Diseases in Alberta—by J. H. Brown, M.Sc., Mimeographed 1954.



## Division of Cancer Services

V. W. WRIGHT, M.D., *Director*

The three Clinics in the Province have experienced a very busy year as the table below will reveal:

### *Clinic Services*

- I. Number of examinations made (Malignant and Benign)  
January 1 to December 31, 1954 is 13,026.

	New		Review		Total	
	1954	1953	1954	1953	1954	1953
Edmonton -----	2,616	2,470	5,702	4,515	8,318	6,985
Calgary -----	1,518	1,327	2,152	1,644	3,670	2,971
Lethbridge -----	507	453	531	418	1,038	871
	4,641	4,250	8,385	6,577	13,026	10,827

It will be noted that the total number of examinations made in the Edmonton, Calgary and Lethbridge clinics is 13,026 as compared with 10,827 in 1953; 9,291 in 1952 and 9,034 in 1951.

- II. Number of examinations made where malignancy was proven—7,658 as compared with 6,175 in 1953 as shown in the following table:

	Edmonton	Calgary	Lethbridge	Total
1954 -----	5,549	1,473	636	7,658
1953 -----	4,653	1,003	519	6,175

- II. (a) New Malignant examinations (1954):

1,072	646	182	1,900
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- III. Number of examinations made on patients which proved Benign—5,368 as compared with 4,652 examinations made in 1953.

1954 -----	2,769	2,197	402	5,368
1953 -----	2,332	1,968	352	4,652

### *X-ray Services*

The X-ray Department of the Edmonton Clinic has had a particularly busy year as shown in the following table:

Diagnostic Radiology	
Number of patients -----	2,965
Number of examinations -----	3,500
Number of X-ray films taken -----	17,999
Therapeutic Radiology	
New Patients -----	570
Treatments given by	
Cobalt 60 -----	1,971
X-ray -----	7,031
Cobalt 60 and X-ray -----	106
Total number of treatments -----	9,108
Radium Insertions -----	60

The X-ray Department is under the charge of Dr. D. A. L. Dick, since the resignation of Dr. M. Marlborough in November 1954; Dr. Dick is also Associate Director of the Edmonton Clinic.

Dr. J. J. Hurley is in charge of Diagnostic Radiology. A new 500 MA Picker Diagnostic machine will be installed in the next few months to enable the Department to take care of the ever increasing need of Diagnostic Radiology.

*Other Services Authorized*

Following are set out the number of procedures authorized by the Clinics and paid for during the Calendar year 1954. (A number of procedures were authorized but not done for various reasons and a number were done but reports were not received during the calendar year 1954.)

NUMBER OF CASES SUPPLIED WITH THE FOLLOWING SERVICES						
	Hospital Services		Radiation Therapy		Diagnostic X-Ray	
	1954	1953	1954	1953	1954	1953
Edmonton -----	935	1,470	626	630	3,548	1,966
Calgary -----	504	529	257	260	412	396
Lethbridge -----	202	221	92	121	301	284
	1,641	2,220	975	1,011	4,261	2,646
	Major Surgery		Exploratory Laparotomy		Breast Biopsies	
	1954	1953	1954	1953	1954	1953
Edmonton -----	594	541	127	126	178	233
Calgary -----	321	244	34	42	126	146
Lethbridge -----	85	65	25	21	66	46
	1,000	850	186	189	370	425
	Other Biopsies		Diagnostic Curettages		Encephalograms, etc.	
	1954	1953	1954	1953	1954	1953
Edmonton -----	503	387	219	250	24	21
Calgary -----	278	203	28	20	2	0
Lethbridge -----	98	99	42	43	0	0
	879	689	289	313	26	21
	Bronchoscopy & Oesophagoscopy		Sigmoidoscopy		Cystoscopy	
	1954	1953	1954	1953	1954	1953
Edmonton -----	101	87	149	118	154	149
Calgary -----	39	21	4	3	39	47
Lethbridge -----	1	5	14	13	19	22
	141	113	167	134	212	218
	Diagnostic Consultations		Laboratory Tests			
	1954	1953	1954	1953	1954	1953
Edmonton -----	107	115	4,130	1,370		
Calgary -----	12	11	*	*		
Lethbridge -----	5	2	5	7		
	124	128	4,135	1,377		

\* Included in Nursing Services.

A total of 4,089 Blood Counts were done in the Edmonton Cancer Clinic Laboratory.

Since the opening of the Clinics in 1941 the total number of examinations made is 84,963.

## Division Of Social Hygiene

PAUL L. RENTIERS, M.D., *Director*

During 1954 the Division has been responsible for maintenance of clinics located in Edmonton, Calgary, and Lethbridge. There has been no change in executive personnel during the year, nor has there been any major alteration in the administrative methods or medical techniques employed by the Division. The continued use of a single mobile clinic has made it unnecessary to reopen any of the part-time clinics which were operated in Alberta during the 1940's.

I am pleased to report that the work of the Division is still mainly limited to control and treatment of two major diseases, gonorrhoea and syphilis. As far as can be determined no other venereal disease has as yet been diagnosed in this province, although suspected cases of chancroid, lymphopathia venereum and granuloma inguinale have been investigated. It is to be noted, however, that despite the fact that there was only a slight increase in clinic attendance throughout 1954 as compared to 1953, there has been a formidable rise in the incidence of primary and secondary syphilis. Figures for the entire province show a total of 72 such cases as compared to 41 in 1953. This increase takes on added importance when we realize that the incidence of gonorrhoea has shown no significant change.

In analysis this Division feels that this rise in incidence of early syphilis must be attributed to several factors:

1. The very rapid growth in population experienced in urban areas.
2. The great influx of transient labour.
3. The temporary disbandment of the Edmonton City Police morality squad as such in April, 1954.
4. The curtailment of control measures in the United States Public Health Service necessitated by the reduction of federal financial aid to this service.

There is little need to elaborate on points 1 and 2 except to state that the extremely important work of the Social Investigators has been made more difficult. As to the third point, it is felt that the recent reorganization of the morality section of the Edmonton City Police under experienced leadership will greatly aid the work of our Division. Regarding the fourth point, it must be stated that early syphilis has shown a rise in the United States during the past year and investigators in the United States Public Health Service feel this to be largely attributable to decreased federal financial aid. At least a portion of the Alberta increase may be assumed to be a reflection of lessened control across the border.

During 1954 some changes have occurred in the management of suspected syphilis cases. The advent of the Treponema Pallidum Immobilization test, which is now being done for the whole of Canada by the Division of Venereal Disease Control of Ontario, has simplified the sero-diagnosis of syphilis. The time required before a suspected case can be definitely diagnosed has been con-



siderably reduced. It is hoped that in the not too distant future this test will be part of the services provided by the Provincial Laboratories in Alberta and some steps have already been taken towards the setting up of this service. Most investigators now feel that the Treponema Pallidum Immobilization test will replace the Wassermann and Kahn tests in the diagnosis of syphilis, although the latter tests will still be necessary as therapeutic guides.

The taking of premarital blood tests remains one of the many functions carried out by our clinic personnel. The value of this procedure has been demonstrated repeatedly from both a medical and an educational point of view. Since December 17, 1954, a fee of one dollar per person has been levied for this service.

Penicillin continues to be the drug of choice in the treatment of syphilis. However, the greater use of this drug has resulted in an increased incidence of severe reactions to it. This has added a further problem in the management of cases under therapy. Special drugs, such as terramycin and aureomycin, have been substituted in selected cases of penicillin sensitivity. All the drugs mentioned above are being distributed free of charge to the private physician on request.

The educational programme of the Division has included a re-organization of the training provided for student nurses attending the clinics on a part-time basis with more emphasis on teaching during their period of affiliation. Lecturers from the Division are responsible for all instruction on venereal disease both in the University of Alberta Medical School and the Schools of Nursing. Purchase of a new film, "Laboratory Aids in the Diagnosis of Syphilis", has helped this programme considerably. Distribution of literature and venereal disease information to interested adult groups has continued.

The statistical report of the Division follows:

ALLEGED SOURCES OF VENEREAL INFECTION OR CONTACTS  
For the Period January 1st, 1954 to December 31, 1954

Location of Source of Infection or Contact	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage of Sources of Infection or Contacts Located
Edmonton .....	795	670	84%
Calgary .....	329	252	89%
Lethbridge .....	29	18	62%
Medicine Hat .....	7	2	29%
Remainder of Province .....	782	703	90%
ALBERTA TOTALS .....	1942	1685	87%
Sources of Infection or Contacts reported outside of the Province of Alberta .....	156	71	46%
TOTALS .....	2098	1756	84%
Unit Forwarding Information	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage of Sources of Infection or Contacts Located
Armed Forces .....	140	97	69%
Private Doctors and Provincial Clinics .....	1785	1552	87%
Other Provinces .....	173	107	63%
TOTALS .....	2098	1756	83%
Sources of Infection in Alberta who could not be located by Authorities concerned .....			151
Sources of Infection outside Alberta who could not be located by Authorities concerned .....			7
Number of Notification Cards (N.H. 1) with no information for contact finding .....			237

## DETAILS OF INFORMATION ON THE FACILITATION PROCESS:

How Informant Met Source of Infection or Contact:			Where Informant Met Source of Infection or Contact:		
Pick-ups	791	38 %	Boarding House or Rooming House	30	1.4%
Introduction	120	6 %	Restaurant or Beer Parlor	300	14 %
Friend	239	11 %	Dance Hall	129	6 %
Marital Partner	204	10 %	Street or Outdoors	294	14 %
Common-law Wife	82	3 %	Friend or Private House	99	5 %
House of Prostitution	0	0 %	Hotel	170	8 %
Appointment	13	1 %	Marital Partner	206	10 %
No Data Available	649	31 %	Recreation or Private Party	114	5.4%
			Train, Bus, Railway Station, Bus Depot	23	1 %
			House of Prostitution	0	0 %
			Taxi or Taxi Office	5	.3%
			At Work	9	.4%
			No Data Available	719	34 %

## DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION:

Place of Exposure:			Occupation of Source of Infection or Contact:		
Rooming House or Apartment	194	9 %	Waitress	144	7 %
Private House	256	12 %	Housewife	82	3.8%
Outdoors	71	3 %	Prostitute or Street Walker	57	2.7%
Car or Truck	223	10 %	Domestic, Hotel, Hospital Maid	74	3.4%
Train, Boat, Motel	23	1 %	Clerk, Salesman, Steno, Teacher, Cashier	75	4 %
House of Prostitution	0	0 %	Factory or Plant Worker	10	.4%
Taxi or Taxi Office	1	.5%	Service Personnel	19	1 %
Hotel	329	16 %	Unemployed	35	1.6%
Room, House or Shack	422	20 %	Laundress or Dry Cleaner	6	.2%
No Data Available	579	28 %	Truck, Taxi or Bus Driver	32	1.5%
			Farmer, Trapper or Fisherman	16	.7%
			Nurse, Nurses' Aide, Orderly	7	.3%
			Dressmaker, Hairdresser	5	.2%
			Laborer or Transient	58	2.5%
			Business Man	4	.1%
			Tradesman, Electrician, Plumber	20	.9%
			Student, Usherette, Usher	8	.3%
			No Data Available	1446	69 %

## PROVINCIAL CLINIC—Provincial Building, 10048 - 101A Avenue, Edmonton, Alberta

## Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated	TOT-ALS
	M F		M F		M F		M F		M F			
	M	F	M	F	M	F	M	F	M	F	M	F
Gonorrhoea (all forms) ---							26	45	537	114		722
Syphilis (Congenital) -----							1	1				2
Acquired—Primary -----									20	2		22
Acquired—Secondary -----							1	1	4	6		12
Acquired—Latent -----									14	11		25
Acquired—Tertiary (other) -----									1	1		2
Type Undetermined -----									1			1
TOTALS -----							28	47	576	135		786

Number of cases of Syphilis—Male 41, Female 23

Number of cases of Gonorrhoea—Male 563, Female 159

Number and results of Serological tests for Syphilis: 8429, of which 413 were positive.

Number and results of Cerebrospinal Fluid tests: 10, of which 1 was positive.

Number and results of Bacteriological tests for Gonococci: 2495, of which 689 were positive.

Number and results of cultures taken for Gonococci: 1252, of which 234 were positive.

## PROVINCIAL CLINIC—711 - 3rd Street East, Calgary, Alberta

## Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) -----							8	34	270	107			419
Syphilis (Congenital) -----							1		1				2
Acquired—Primary -----									6				6
Acquired—secondary -----										2			2
Acquired—Latent -----							1		4	2			7
Acquired—Tertiary (Neurosyphilis) -----									1				1
Type Undetermined -----									1				1
TOTALS -----							8	36	282	112			438

Number of cases of Syphilis—Male 12, Female 7

Number of cases of Gonorrhoea—Male 278, Female 141

Number and results of Serological tests for Syphilis: 4442, of which 278 were positive.

Number and results of Cerebrospinal Fluid tests: 14, of which 1 was positive.

Number and results of Bacteriological tests for Gonococci: 2791, of which 430 were positive.

Number and results of cultures taken for Gonococci: 1918, of which 36 were positive.



## LETHBRIDGE CLINIC—315 - 10th Street South, Lethbridge, Alberta

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) ----	---	---	---	---	---	---	1	3	7	2	---	---	13
Acquired—Primary -----	---	---	---	---	---	---	---	---	1	---	---	---	1
Acquired—Secondary -----	---	---	---	---	---	---	---	---	---	1	---	---	1
Acquired—Latent -----	---	---	---	---	---	---	---	---	1	---	---	---	1
TOTALS -----	---	---	---	---	---	---	1	3	9	3	---	---	16

Number of cases of Syphilis—Male 2, Female 1

Number of cases of Gonorrhoea—Male 8, Female 5

Number and results of Serological tests for Syphilis: 462, of which 28 were positive.

Number and results of Cerebrospinal Fluid tests: 7, of which 2 were positive.

Number and results of Bacteriological tests for Gonococci: 45, of which 8 were positive.

Number and results of cultures taken for Gonococci: 4, of which 0 were positive.

## PROVINCIAL GAOL—Fort Saskatchewan, Alberta

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) ----	---	---	---	---	---	---	7	25	33	122	---	---	187
Syphilis (Congenital) -----	---	---	---	---	---	---	---	---	1	---	---	---	1
Acquired—Primary -----	---	---	---	---	---	---	---	---	---	---	---	---	1
Acquired—Secondary -----	---	---	---	---	---	---	---	---	---	1	---	---	1
Acquired—Latent -----	---	---	---	---	---	---	---	---	4	---	---	---	4
TOTALS -----	---	---	---	---	---	---	7	25	39	123	---	---	194

Number of cases of Syphilis—Male 6, Female 1

Number of cases of Gonorrhoea—Male 40, Female 147

Number and results of Serological tests for Syphilis: 4185, of which 122 were positive.

Number and results of Bacteriological tests for Gonococci: 1841, of which 69 were positive.

Number and results of cultures taken for Gonococci: 1654, of which 96 were positive.

## PROVINCIAL GAOL—Lethbridge, Alberta

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) ----	---	---	---	---	---	---	---	---	3	---	---	---	3
Acquired—Latent -----	---	---	---	---	---	---	---	---	1	---	1	---	2
TOTALS -----	---	---	---	---	---	---	---	---	4	---	1	---	5

Number of cases of Syphilis—Male 2, Female 0

Number of cases of Gonorrhoea—Male 3, Female 0

Number of Prisoners admitted: 1922.

Number and results of Serological tests for Syphilis: 1408, of which 43 were positive.

## MOBILE CLINIC

Chard, Imperial Mills, Lac La Biche, Surrounding Area and McMurray

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) ----	---	---	---	---	---	---	1	---	1	1	---	---	3
Syphilis Acquired—Latent --	---	---	---	---	---	---	---	---	1	1	---	---	2
TOTALS -----	---	---	---	---	---	---	1	---	2	2	---	---	5

Number of cases of Syphilis—Male 1, Female 1

Number of cases of Gonorrhoea—Male 2, Female 1

Number and results of Serological tests for Syphilis: 1015, of which 105 were positive.

Number and results of Cerebrospinal Fluid tests: 4, of which 0 were positive.

Number and results of Bacteriological tests for Gonococci: 12, of which 3 were positive.

## PRIVATE PHYSICIANS REPORTING CASES

Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) ----	1	---	1	---	1	---	31	30	269	43	20	10	406
Syphilis (Congenital) -----	2	1	1	1	1	1	---	---	1	---	1	---	9
Acquired—Primary -----	---	---	---	---	---	---	2	---	18	1	1	---	22
Acquired—Secondary -----	---	---	---	---	---	---	1	1	1	1	---	---	4
Acquired—Latent -----	---	---	---	---	---	---	4	18	16	---	3	3	44
Acquired—Tertiary (Cardiovascular) -----	---	---	---	---	---	---	---	---	1	---	---	---	1
Acquired—Tertiary (Neurosyphilis) -----	---	---	---	---	---	---	---	10	4	---	---	---	14
Acquired—Tertiary (other) --	---	---	---	---	---	---	2	11	8	---	2	---	23
Type Undetermined -----	---	---	---	---	---	---	1	---	3	1	1	---	6
TOTALS -----	3	1	2	1	1	2	35	37	331	75	28	13	529

Number of cases of Syphilis—Male 78, Female 45

Number of cases of Gonorrhoea—Male 322, Female 84

Number of Doctors in the Province receiving consultative service

Number of doses of Arsenicals distributed to Private Physicians

Number of doses of Bismuth distributed to Private Physicians

Number of units of Penicillin distributed to Private Physicians: 1034 vials (3,000,000 units) Procaine G in Oil.



NEW CASES OF SYPHILIS AND GONORRHOEA REPORTED IN ALBERTA—1954  
Total Number of New Cases of Venereal Disease Classified as to Sex and Age of Patient

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		TOT- ALS
	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhoea (all forms) -----	1	--	1	--	--	1	97	137	1225	389	23	10	1884
Syphilis (Congenital) -----	2	1	1	1	1	1	1	2	2	1	1	--	14
Acquired—Primary -----	--	--	--	--	--	--	2	--	49	3	1	--	55
Acquired—Secondary -----	--	--	--	--	--	--	2	2	6	11	--	--	21
Acquired—Latent -----	--	--	--	--	--	--	--	5	43	31	4	3	86
Acquired—Tertiary (Cardiovascular) -----	--	--	--	--	--	--	--	--	1	--	--	--	1
Acquired—Tertiary (Neurosyphilis) -----	--	--	--	--	--	--	--	--	11	4	--	--	15
Acquired—Tertiary (other) -----	--	--	--	--	--	--	--	2	12	9	2	--	25
Type Undetermined -----	--	--	--	--	--	--	1	--	3	3	1	--	8
TOTALS -----	3	1	2	1	1	2	103	148	1352	451	32	13	2109
Total number of cases of Syphilis—Male 146, Female 79 -----													225
Total number of cases of Gonorrhoea—Male 1347, Female 537 -----													1884

TOTAL NUMBER OF CASES ADMITTED TO THE VARIOUS CLINICS OF THE  
DIVISION OF SOCIAL HYGIENE

Sex	Syphilis		Gonorrhoea	Total
Male -----	65		894	959
Female -----	33		453	486
TOTALS -----	98		1347	1445

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Total
Syphilis -----	123	4	127
Gonorrhoea -----	406	131	537
TOTALS -----	529	135	664
Total number of cases of Syphilis reported in Alberta -----			225
Total number of cases of Gonorrhoea reported in Alberta -----			1884
			2109

Total number of cases of Syphilis reported in Alberta exclusive of Armed Personnel -----	221
Total number of cases of Gonorrhoea reported in Alberta exclusive of Armed Personnel -----	1753
	1974

## Division of Health Education

C. C. EVOY, B.Sc., *Director*

Activity to inform the people of Alberta how to avoid preventable diseases and work for better health by individual and community action using provincial and local health services was continued and expanded during the year 1954 by the Division of Health Education.

During the year work of the Division was extended to reach many thousands more persons in the province. This was done by stimulating health education activities of many other persons and community groups.

Main dependence of the Division has continued to be on staffs of health units and municipal nurses of the province. In addition there has been a very marked increase of interest and activity in health education by members of the medical and dental professions, teachers, youth leaders, community organizations such as Home and School Associations and church groups.

This expanded activity was reflected by a very substantial increase in the load of work carried by the staff of the Division and is partially reflected in such figures as the 80 per cent increase in film bookings and the 90 per cent increase in literature distribution.

### *Tours and Public Meetings*

An important phase of the work of this Division has continued to be tours of the more isolated areas of the province by the Director frequently accompanied by the Public Health Nutritionist. These tours included visits to schools in the area and public meetings in the evening arranged by the municipal nurses.

From January to April, twenty-five schools were visited in such tours and in September thirty-two schools were visited in another tour. On these visits we were accompanied by the municipal nurse in each area. In all school visits the teachers were made acquainted with the work of the division and in a more general way with the services of the Department of Public Health.

In many of the schools films were shown on the portable projector and lessons in health were taught. Most of the students in these schools seldom have an opportunity to see educational or any other class of film. About 2,000 pupils were given such lessons and film screenings.

Besides the opportunity provided by the tours to reach these students and members of the public attending meetings arranged for the evening, this activity provided an opportunity for in-service training in health education for the municipal nurses and a refresher course in health education methods for the teachers visited.

During the year trips were also made to health units in various parts of the province to hold workshops on film utilization in health education. The staffs of five health units and one city

Board of Health attended four of these workshops held in Lethbridge, Calgary, High River and Red Deer.

Each of these workshops had two phases. At the first section instruction and training in the mechanical use of the projector was given. The second phase covered the methods of using the film as an educational tool, including selection, preparation of self and audience and guiding subsequent discussion.

In addition a series of evenings was devoted to conducting film mechanics classes for the sanitary inspectors of northern Alberta at their regular monthly meetings.

A workshop on film utilization was also held at the spring conference of the municipal nurses of the province held during Easter week. Representatives of the National Film Board co-operated at all of these film utilization workshops.

In addition to the public meetings arranged on tours the Director has been called on to address other gatherings during the year on services of the department or other public health subjects. These gatherings have included a number of church and Sunday school groups and a number of Edmonton Home and School Associations.

### *Publications*

A new booklet ALBERTA'S HEALTH SERVICES PROGRAM, which incorporated the information and material in two previous booklets YOUR HEALTH SERVICES and ALBERTA'S HOSPITALIZATION PROGRAM was prepared and edited during the year. The booklet was designed and written to acquaint citizens of the province with the whole program of the Department of Public Health and how the services of this program may be secured by individuals in need of them.

Since the end of September more than 6,000 copies of the booklet have been distributed to municipal and health unit officials, hospital boards, doctors, nurses, executives of community organizations and members of the public as well as editors, radio commentators and teachers and students. The very large number of requests for this booklet which continue to come from all parts of the province indicates a very lively interest in the subject of the booklet in all sections of the population.

Two other older publications PROTECTING THE COMMUNITY MILK SUPPLY and PROTECTION OF THE COMMUNITY'S FOOD SUPPLY were rewritten, edited and published during the year in collaboration with the Division of Sanitary Engineering. The leaflet PROTECTING THE COMMUNITY MILK SUPPLY describes regulations and methods of enforcement in regard to the production and sale of milk, methods of testing for purity and quality, methods of pasteurization, tuberculin testing of cattle and regulations regarding milk pasteurization. PROTECTION OF THE COMMUNITY'S FOOD SUPPLY incorporated federal regulations under the Food and Drugs Act, and other acts with the provincial sanitary regulations regarding the sale of food.

The mimeographed publication HEALTH EDUCATION NOTES, with information on new films, booklets and other health education materials available from the Division, continued to be pre-



pared and published during the year and distributed to other divisions of the department, to staffs of the health units and other public health workers in the province.

Other mimeographed material edited and published during the year included a supplement to our film catalogue HEALTH EDUCATION SERVICES listing additional films that had been added to the Health Education film library. Another new supplement will be published in the near future.

Also published was an information sheet for the general public on the latest information on hospital and medical services provided by the province for poliomyelitis patients. Additional mimeographed publications included a variety of notices, forms, letters to doctors, nurses and literature order forms for teachers of the province.

### *Health Literature Distribution*

Approximately 375,000 pieces of health literature and 8,000 posters were distributed by the Division during the year. This represented an increase of 90 per cent over the distribution for the previous year. A large proportion of this was made up of increased orders from teachers of the province for material for use in the classrooms in connection with the Health and Personal Development courses in the curriculum.

Child and maternal welfare continued to lead as the subject most in demand for general distribution with booklets and pamphlets on the work and services of the Department of Public Health as a close second.

This growing distribution has continued to be directed towards readers who would have the most immediate interest in it and need for it. Most of the material reaches readers through the public health workers in local health units or health boards. The medical profession of the province is making increasing use of material from the division.

The Division of Health Education secured from the National Foundation for Infantile Paralysis and distributed to the physicians of Alberta copies of the booklet DEFINITIVE AND DIFFERENTIAL DIAGNOSIS OF POLIOMYELITIS in connection with the poliomyelitis vaccine tests conducted in the province last summer.

### *General*

Among the dozens of requests received by the division every week for regular services of the division, booklets, pamphlets and program help or film bookings would be many asking for special information on a variety of subjects in the health field for teachers, nurses and doctors or other speakers, or writers. These requests were all answered with the help of other members of the department, if possible, or else the queries were directed to other sources of information.

Many correspondents sought information on community health and sanitation problems and conditions and asked advice on what could be done about them. Arrangements were made in most cases

to put these correspondents in touch with appropriate local or provincial health officials and through the latter to give them any needed help in educational activity required.

### *Films*

Use of films and filmstrips from the Health Education film library increased 70 per cent in 1954. During the year there were a total of 5,270 screenings of Health Education films to an aggregate audience of 230,000 persons.

While all uses of films showed an increase the growing demand from community organizations such as Home and School Associations accounted for a large part of the rise in film use.

Training in the use of films in workshops, provided for nurses and sanitary inspectors, resulted in greater use of films by the public health personnel of the province. The sanitation section of the Edmonton Board of Health continued to use films and other material from the division in classes for food handlers of the city.

Through the Division of Health Education a school for food handlers and restaurant help in the Banff National Park was arranged. Personnel of the Division of Sanitary Engineering conducted the classes and used films and educational material provided by this division.

Leaders in Boy Scouts, Brownies, Girl Guides, Y.M.C.A. and Y.W.C.A. groups made increasing use of health education films during the year. The films were also in use at a variety of summer camps for children. First aid, safety and physiology films from our library were used by 22 first aid classes during the year.

Other films were wanted by a number of municipalities in connection with proposals and plebiscites on water supply and sewage disposal plans being considered.

Groups representing wider organizations who viewed a selection of films as a suggestion for program materials for their organizations included ministerial groups, representatives from all the Home and School organizations in the Edmonton area, Y.W.C.A. group leaders at a conference in Calgary and social workers in Calgary and Edmonton.

The Division of Health Education has co-operated with a number of federal government agencies to make health education materials available to Indians and Eskimos living in or near the province. Nurses and social workers of the Indian Affairs branch have made use of films from our library.

Through the year the Division supplies films and materials to the School For Nursing Aides conducted in Fort Smith, N.W.T. where girls from both Alberta and North West Territories are receiving an excellent elementary training in health.

For the second year the Division assisted at a short course operated at the Charles Camshell hospital for R.C.M.P. officers being stationed in the extreme north. The course covered emergency obstetrics, nutrition and sanitation and the Division supplies instructional films and arranged for speakers from the Department of Public Health.



*Film Production and New Films*

During the year in co-operation with the Photographic Branch of the Department of Economic Affairs a film YOUR HEALTH UNIT dealing with the story of the establishment of a health unit, was planned, written and produced.

The film follows the sequence of events as they actually occurred in starting the Barons-Eureka Health Unit and uses the real people who actually took part in the events they portray in the film. Processing and printing of the film has now been completed and it will be available in the Health Education film library in 1955.

During the year 48 new titles were added to the film library and new copies of nine others were also added either to replace films which had worn out or to make additional copies available of films that were so much in demand that many orders could not be filled. There are now 438 sound films, 49 silent films and 81 filmstrips in the library.

Considerable attention was paid to the selection of films to be added to the library. This involves securing for preview and screening several times the number of films actually purchased. These are screened by a representative of the division with a carefully chosen committee of individuals who are acquainted with the subject of the film, and health units, medical and nursing representatives. The result of this careful selection is that most of the films added to the library have met with an excellent reception and heavy demand from the public.

*Exhibits and Displays*

The Department of Public Health was represented at the Edmonton Exhibition in July 1954 by work exhibits from the Provincial Mental Institute and the Aberhart Memorial Sanatorium and a display of the School for Nursing Aides. The Division assisted in arrangements for the exhibits and provided some required display materials.

During the summer a number of health units were again given assistance in planning displays for the local fairs at Camrose, Stettler, Athabasca, Grande Prairie and Westlock. Turntables and other equipment loaned by the Division of Health Education assisted the health units in telling the communities something about their local health services.

Space for a large display of health education and program assistance material was provided at the annual convention of the Alberta Federation of Home and School Associations held in Edmonton last May with delegates present from more than 500 local associations. A representative from the Division and a representative from the Edmonton Guidance Clinic were present at the display during the sessions and during the two days nearly 1,000 persons who viewed the display asked questions about work of the department and left requests for information and materials.

For the second year the Division placed a display at the annual meeting of the Alberta Division of the Canadian Medical Association held in Calgary in October.

The display was attended by a member of the Division and reached a large proportion of the doctors in the southern sections



of the province who had not previously been as aware of the work of the Division. It received considerable attention from the press.

A new departure for the Division last autumn was the inauguration of displays of health education materials at the local conventions of the Alberta Teachers Association. The displays were arranged in co-operation with the health units of the convention districts and four of the conventions were attended by representatives of the Division and the health units and six conventions were attended by health unit representatives using materials arranged and supplied by this division.

The displays were visited and studied by between 4,000 and 5,000 teachers and further requests have been received from over 25 per cent of them for materials they saw in the display relating to the subjects they were teaching.

Expressions of appreciation have been received from the executives of the associations for the displays. The project not only brought health education more strongly into the minds of the teachers but provided an opportunity for the public health nurses in attendance to meet a large number of teachers in a short period of time.

## Nutrition Services

ELVA M. PERDUE, B.Sc. (H.Sc.), *Director*

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The following report covers the work of Nutrition Services for the calendar year 1954.

The emphasis on the integration of the activities of Nutrition Services into other services of the health department as described in previous reports has continued. This plan appears to be the one to follow and develop because the nutritional level of the pre-natal, the post-natal, the infant, the child, the adult, the older person, the sick and the well depends on the kind and the amount of food eaten and the prevention and correction of many of the common health problems possess a nutrition component of significance.

### *General*

Nutrition Services has received more requests for service during the year than during any previous year. The variety of services requested covered a broader field and included speakers for meetings, assistance with food purchasing, technical information, nutrition literature and posters. Then, too, there was also an increase in calls for service from a greater number of agencies, organizations and associations.

There were fewer inquiries about severe deficiency diseases, and an increased number of inquiries about the quality and quantity of the nutrients necessary for health. This appears to indicate a greater interest in the facts about nutrition as it affects the health of the people.

### *Activities*

**NURSES:** The nutritionist had an opportunity to assist new staff to become acquainted with nutrition problems in their area. Before going to their posts the municipal nurses usually spend some time with the nutritionist to become acquainted with the services available and how they might be used.

Twenty-nine nurses were visited in their areas during the year. The work requested by the nurses included consultation with individual patients and home visits to specific families. Adult meetings were arranged through the public health nurses.

**SCHOOLS:** Tours of the schools in the province were arranged with local public health workers. Methods of teaching nutrition using materials available from Nutrition Services were discussed with the teachers. It is felt that these informal meetings established a closer relationship between the teachers and the public health personnel.

School students, as in the past, requested information and publications on many phases of nutrition. In addition nutrition displays were loaned to schools to assist in their programs.

**INSTITUTIONS:** Dietary consultant service to municipal hos-

pitals, welfare institutions and school dormitories has been continued during the past year. The monthly release "Institutional Supper Menus" was again produced and distributed. In addition requests for assistance have included: consultation service on hospital food service departments; organization and management; purchasing; use and maintenance of equipment; therapeutic needs; provision of menu guides; and evaluation of institutional practices.

Nutrition Services was also asked to review the architectural plans for four new and renovated food service departments and the equipment specifications.

### *Special Services*

The following types of services were given upon request:

1. Prepared materials on food budgeting and special diet menus to assist public health nurses and welfare workers when dealing with individual patients.

2. Quantity recipe books and therapeutic diet manuals were made available on loan to fourteen municipal hospitals.

3. A quantity recipe book has been compiled and will be mimeographed and distributed during 1955.

4. In response to requests from the municipal hospitals work has been commenced on a therapeutic diet manual.

5. The following mimeographed materials were prepared or reprinted during the year:

- (a) Pre-natal Leaflet

- (b) Classroom Activities

- (c) Food Fads and Fallacies

6. The Nutritionist participated in the refresher course for hospital matrons.

7. The Nutritionist assisted in a course offered at the Charles Camshell Hospital, Edmonton, for twenty R.C.M.P. officers, who were being posted to isolated points in the Northwest Territories.

8. During the five-day course on the care of the poliomyelitis patient the Nutritionist acted as a resource person in the field of feeding the poliomyelitis patient.

9. Program assistance was given to nineteen Home and School Associations; five Women's Institutes; seven Women's Church groups; six Girl Guide groups; two C.G.I.T. groups; five classes of student nurses; two groups of student teachers.

10. The Nutritionist attended the meetings of the Dominion Provincial Nutrition Committee and the Canadian Council on Nutrition in Ottawa.

The year's work as revealed in the report shows a widening scope of activities and an increased interest in nutrition. There are still many untapped avenues which might be used for the dissemination of nutrition information and it is hoped that it will be possible to develop these in 1955,



## Division of Municipal Nursing

MARGUERITE MACALISTER, R.N., P.H.N., *Director*

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One of the major changes during the year 1954 was the establishment of the upkeep and maintenance of the nurses cottages, grounds and water supply on a taxation basis. The local societies found that it had become impossible to collect sufficient funds on a voluntary basis to properly maintain the cottages. The local Nursing Service Society still retain ownership of the cottage and are paid rent by the Local Authority to cover the cost of improvements and maintenance.

The number of Nursing Services has remained stationary at a total of thirty-three—twenty-seven in Improvement Districts, six full-time and one part-time in organized Municipalities.

The Municipal Nursing Services in Improvement Districts are as follows:

Alder Flats	Hines Creek	Sunnynook
Blueberry Mountain	Kinuso	Tangent
Bonanza	Lindale	Valleyview
Breton	Lomond	Vauxhall
Breynat	New Brigden	Wanham
Dixonville	Peers	Whitecourt
Fawcett	Plamondon	Winfield
Fort Assiniboine	Slave Lake	Worsley
Hilda	Smith	Youngstown

Municipal Nursing Services in organized Municipalities are as follows:

- Foremost in M. D. of Forty Mile No. 2
- Grassland in M. D. of Athabasca No. 103
- Milk River in County of Warner No. 5
- Warner in County of Warner No. 5
- Tulliby Lake in M. D. of Vermillion River No. 71
- Whitemud Creek in M. D. of Smoky River No. 130  
(part-time)
- Tomahawk in M. D. of Stony Plain No. 84.

The field staff for the year included 22 permanent staff members of which seven permanent appointments became effective during the year. 24 temporary nurses of which 12 were new appointments. There were 3 resident married nurses in various busy districts who were appointed to relieve for holidays. Four nurses were granted leave of absence to take the Public Health Course; three of those are attending the University of

Alberta, and one is at McGill University, Montreal. One nurse took leave of absence for personal reasons. There were 10 resignations, of which five nurses accepted other employment and five were married nurses.

### *Staff Education*

The Annual Spring Conference which was held in the Conference Room, Administration Building, Easter week, was attended by all of the nurses. The theme of the Conference was "Mental Health" and was conducted by the staff of the Edmonton Guidance Clinic under the direction of Dr. R. Schrag.

The "News Letter" was issued quarterly to all staff members, with general information on newer trends in nursing applicable to the nursing service program.

New staff members were given a few days orientation in the Nursing Division office, Well Baby, Immunization Clinics and School Health program in Edmonton before going into a district with another Municipal Nurse, and then on to her own appointed district.

As much direction as possible is given to the nurses through correspondence and by means of the monthly report all nurses are required to submit.

The General Manual on Personnel Policies and Procedures was revised.

### *Miscellaneous*

Lectures given by the office staff were as follows:

2 lectures on "Municipal Nursing in Alberta" to a total of 40 senior nurses at the Edmonton General Hospital.

1 lecture on "Municipal Nursing in Alberta" to 50 third-year medical students.

1 lecture on "Home Nursing" to 100 ladies attending the Agricultural Short Course.

1 lecture on "Municipal Nursing in Alberta" to 21 Public Health students at the University of Alberta.

The film "District Nurse" and leaflet on Municipal Nursing were used for all lectures on Municipal Nursing.

The leaflet on Municipal Nursing has been widely distributed throughout the Province at the request of the school teachers.

## Report of the Provincial Laboratories

R. D. STUART, M.D., *Director*

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During 1954 the Provincial Laboratories carried out 294,214 examinations, the nature of which is shown in the accompanying tables. The work done increased by 16,840 examinations or by 6%. These figures were derived from a method of work presentation developed many years ago and, though readily comparable with earlier figures, no longer represent adequately the demands of new techniques or give value to the special examinations so often referred to your laboratories. An attempt will be made during the forthcoming year to express the volume of work in more up to date terms and to revise the 1955 annual report in accordance.

### *Special Trends*

IN THE CENTRAL PROVINCIAL LABORATORY. The demand for antibiotic sensitivity tests on organisms isolated in our diagnostic routine continues to grow. Since these organisms have to be tested routinely against at least 5 antibiotics it is little wonder that our total of disc-test examinations has increased by 19,000. The value of such tests has been repeatedly emphasized by medical authorities and has been confirmed in our own area by a special investigation carried out with our co-operation by Dr. J. D. Munroe working as a research student in the University Department of Bacteriology. Dr. Munroe, from a close study of hospital records, was able to determine that treatment along the lines suggested by the laboratory sensitivity tests cut the hospital time of patients by as much as 75%.

The fall of 3,951 in the figures recorded for *Gonococcus* cultures does not indicate any decrease in clinical interest. Indeed about 400 more specimens were received, but cervical and urethral swabs, received from each patient and previously cultured separately, were now cultured together and thus constituted one examination instead of two. This technical simplification was achieved without any depreciation of the clinical value of the results.

A possible trend was the increasing involvement of the laboratory in a hospital problem of considerable magnitude, the increase in infections due to antibiotic resistant staphylococci. Thus, during one period of almost epidemic prevalence of such infections, the laboratory became directly responsible for most of the epidemiological investigation and for the attempted control of bacterial transmission. The extra work in consultation and personal investigation is not revealed anywhere in the tables.

Reporting on pathology Dr. Macgregor comments on the continued increase in the diagnostic histology service, which is now one of the largest in Canada. This year's increase of almost 1,000 specimens has more than wiped out the fall in 1952 when the establishment of a pathological service in the Misericordia Hospital relieved for a time the heavy burden on this laboratory. Whether our current trend should be towards



further devolution or towards enlargement of local staff is not clear. The matter, however, is not trivial because only medical men with special training and experience can carry out this type of work.

IN THE SOUTHERN BRANCH LABORATORY. In Calgary the transference of the Clinical Pathology section from the Provincial Laboratory to the Baker Memorial Sanatorium in March resulted in a very small decrease in the total number of examinations recorded. As indicated in last year's report, this transference was largely a matter of administrative convenience, and Dr. Shute's laboratory still provides the services for the sanatorium in serology, miscellaneous bacteriology, histology and supplies culture media for the isolation of the tubercle bacillus.

The trend to an increased demand for the examination of material for cancer cells by the exfoliative technique continues to develop. We were fortunate in being able (with the financial assistance of the Alberta Cancer Society) to let Dr. Shute take a special course in this new technique. During the year examinations of this type increased by 131 or 78%.

#### *New or Supplementary Services*

In Edmonton an antibiotic sensitivity service has been developed. Paper discs impregnated with the amounts of individual antibiotics necessary for testing bacterial sensitivity are prepared for the laboratory instead of being bought commercially. In this way a direct saving of at least \$1,000 has been achieved. In addition we are able to supply these discs at cost to the various Edmonton hospital laboratories thus standardizing the technique in the local area and also achieving a very considerable saving to the hospitals concerned; 28,500 discs were supplied at a cost of \$570, approximately half commercial cost.

With the cooperation of the Department of Bacteriology a limited service was offered for the determination of the anti-streptolysin titre in sera from patients with various diseases of possible rheumatic origin. These tests are often helpful to clinicians in the differential diagnosis of many obscure arthritic and cardiac diseases. Several hundred tests were carried out but the demand is not yet of sufficient magnitude to come directly into Provincial Laboratory routine.

In the Calgary laboratory a culture service is now provided for the investigation of suspected gonorrhoea in women. Although this has been in operation only three months, Dr. Shute indicates that considerable clinical appreciation has been expressed because of the much greater significance of the laboratory findings in the diagnosis of atypical or peculiar cases.

Both laboratories were involved in the recent Provincial Poliomyelitis Vaccine Evaluation Study. Essential to this was the processing of blood samples taken from the participating children. Senior professional personnel had to be employed on this because of the extreme care essential to the final examination carried out by the courtesy of the Connaught Virus Laboratories. In all 858 sera were received, handled and forwarded by the Edmonton laboratory, including 415 received and processed by Dr. Crichton in the Calgary branch.

*Regular Laboratory Services*

Many interesting and peculiar cases have been investigated bacteriologically in both laboratories, but I shall comment only on two circumstances of possible epidemiological significance. Diphtheria, which has been very rare in the Province for a number of years, seems to be reappearing. During the year the Edmonton laboratory isolated 17 strains of *C. diphtheriae* from persons in the McLennan area, and 13 strains from specimens submitted by the Sturgeon Health Unit. It is of interest that the first group were all of 'Intermedius' type, the second of Gravis Type 2, indicating separate foci of organismal prevalence. The second epidemiological circumstance is the increase in dysentery infections due to *B. dysenteriae* infection. This was particularly notable during December when an institutional outbreak necessitated the examination of 244 specimens of which 138 were positive to *B. dysenteriae sonnei*. The same investigation revealed that two of these patients were also carrying *Salmonella paratyphosa* B. though this was apparently playing no part in the outbreak.

SANITARY BACTERIOLOGY requires special mention because of the continued increase in water examinations. In Edmonton the increase of 544, approximately 9%, expressed the continuation of the trend pointed out last year. In Calgary the increase of 1,053, or almost 59%, was largely due to an attempt to demonstrate to one small town the potential danger of its many contaminated wells and the advantages of a town reservoir and piped domestic supply.

The techniques of water examination have been much discussed lately in both Canada and the U.S. To ensure that we were fully informed on all the latest procedures Miss Helen Carlyle, our senior technologist in the water section, took a special two-week course in Sanitary Bacteriology given by the Laboratory of Hygiene in Ottawa. The information she obtained has been of distinct value to our service.

PATHOLOGY. The increase in diagnostic histology examinations carried out in Dr. Macgregor's department of the Edmonton Laboratory has already been indicated. In Calgary Dr. Shute reports a similar increase, in his case of 872 specimens or 31%. In both laboratories a definitive diagnosis of cancer was established in roughly 10% of these specimens.

In Edmonton other examinations continued at approximately the same level, with the exception of medico-legal autopsies of which 45 were carried out this year. In Calgary the large increase in routine smear diagnosis of cancer has already been mentioned.

TABLE No. 1  
WORK PERFORMED SHOWING COMMERCIAL VALUE IN THE PROVINCIAL LABORATORIES DURING THE YEAR 1954

ITEM	Unit Value	EDMONTON		CALGARY		TOTAL	
		Number	Value	Number	Value	Number	Value
Sputum Examinations	\$1.00	1,713	\$ 1,713.00	1,198	\$ 1,198.00	2,911	\$ 2,911.00
Diphtheria and Haemolytic Streptococci	1.00	4,438	4,438.00	768	768.00	5,206	5,206.00
Diphtheria Virulence Tests	5.00			17	85.00	17	85.00
Typhoid Fever (Agglutination Test)	1.00			1,307	1,307.00	3,401	3,401.00
Milk	3.00	2,094	2,094.00	977	2,931.00	2,365	7,095.00
Water	10.00	1,388	4,164.00				
Guinea Pig Inoculations		6,828	68,280.00	2,869	28,690.00	9,697	96,970.00
Miscellaneous Bacteriology	3.00	2,733	8,199.00	1,054	3,162.00	3,787	11,361.00
Blood Cultures	3.00	8,043	24,129.00	1,309	3,927.00	9,352	28,056.00
Enterobacteria and Intestinal Parasites	3.00	1,004	3,012.00	120	360.00	1,124	3,372.00
Urinalysis	3.00	3,730	11,190.00	340	1,020.00	4,070	12,210.00
Medico-legal (Blood, Seminal, etc.)	1.00	10	10.00	417	417.00	427	427.00
Blood Counts	5.00	11	55.00			11	55.00
Biochemistry Investigations	1.00			258	258.00	258	258.00
Cerebro-spinal Fluids for the Wassermann Test	3.00			24	72.00	24	72.00
Bloods for the Quantitative Kahn Test	1.00	1,810	1,810.00	1,051	1,051.00	2,861	2,861.00
Bloods for the Wassermann Test	2.00	878	1,756.00	331	662.00	1,209	2,418.00
Bloods for the Standard Kahn Test	1.00	5,009	5,009.00	2,958	2,958.00	7,967	7,967.00
Bloods for the Presumptive Kahn Test	1.00	4,866	4,866.00	2,763	2,763.00	7,629	7,629.00
Smears for Gonococcus	1.00	93,958	93,958.00	28,924	28,924.00	122,882	122,882.00
Cultures for Gonococcus	1.00	10,724	10,724.00	2,952	2,952.00	13,676	13,676.00
Pathological Histological Material	1.00	4,753	4,753.00	390	390.00	5,143	5,143.00
Blood Smear Examinations	5.00	11,960	59,800.00	3,581	17,905.00	15,541	77,705.00
Post Mortem Examinations	2.00	253	506.00	130	260.00	383	766.00
Post Mortem Reports (Outside Points)	25.00	359	8,975.00	33	825.00	392	9,800.00
Ascheim Zondek Tests	10.00	158	1,580.00			158	1,580.00
Frog Tests	5.00	13	65.00			13	65.00
Fluids for Cancer Cells	5.00	554	2,770.00			554	2,770.00
Cancer Cytology	5.00	304	1,520.00	296	1,480.00	600	3,000.00
Bone Marrows	2.00	49	98.00			49	98.00
Cerebro-spinal Fluid Examinations (Colloidal Gold, Pandy)	5.00	15	75.00			15	75.00
Bacteriological Examinations (P.M.)	5.00	2,034	4,068.00	1,073	2,146.00	3,107	6,214.00
B. abortus Examinations (Agglutination Test)	5.00	145	725.00			145	725.00
P. tularensis (Agglutination Test)	.50	1,923	961.50	1,307	653.50	3,230	1,615.00
Antibiotic Sensitivities, etc. (Discs)	.10	2,057	1,028.50	1,307	653.50	3,364	1,682.00
Mycological Examinations	1.00	47,650	47,650.00			47,650	47,650.00
Weil Felix	3.00	775	2,325.00	23	69.00	798	2,394.00
Paul Bunnell Tests	1.00	10	10.00			10	10.00
T.B. Smears and Cultures	2.00	889	1,778.00			889	1,778.00
Autogenous Vaccine	3.00	3,322	9,966.00	76	228.00	3,398	10,194.00
Leptospirosis Agglutinations—Cattle Bloods	5.00	40	200.00			40	200.00
Leptospirosis Agglutinations—Human Bloods	1.00	759	759.00			759	759.00
	1.00	255	255.00			255	255.00
		227,514	\$352,390.00	57,853	\$108,115.00	285,367	\$460,505.00



Table No. 2 gives the detail of examinations of milk performed during the year 1954.

TABLE No. 2		
MILK	Edmonton	Calgary
Number of milks examined bacteriologically .....	1,388	972
Number of milks examined for butterfat .....	163	168
Number of milks examined for B. coli .....	587	965
Number of milks tested by the Phosphatase Test .....	232	230
Number of ice creams examined .....	37	14
Number of rinse waters examined bacteriologically .....	13	15
Number of milks examined for Thermophilic Counts .....	---	29

Table No. 3 gives the detail of the bacteriological and chemical examinations of water performed during the year 1954.

TABLE No. 3		
WATER	Edmonton	Calgary
Number of samples of water examined bacteriologically and found fit for human consumption .....	3,109	1,549
Number of samples of water examined bacteriologically and found unfit for human consumption .....	1,173	1,311
Number of samples of water examined bacteriologically and chemically and found fit for human consumption .....	661	---
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption .....	608	---
Number of samples of water examined chemically and found fit for human consumption .....	1,689	---
Number of samples of water examined chemically and found unfit for human consumption .....	852	---
Number of samples of ice examined bacteriologically and found fit for human consumption .....	4	3
Number of samples of ice examined bacteriologically and found unfit for human consumption .....	1	1

TABLE No. 4 SHOWS LABORATORY WORK DONE IN RELATION TO THE CONTROL OF TUBERCULOSIS DURING 1954

SPECIMEN	GUINEA PIG SMEAR & CULTURE		SMEAR & CULTURE		POSITIVE		% POSITIVE		NEGATIVE		% NEGATIVE	
	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary
Sputum and Gastric Washings	1,188	1,427	688	339	187	13.1%	18.0%	1,537	1,240	82.0%	86.9%	
Urine	657	472	6	65	21	4.4	9.8	598	451	90.2	95.6	
Pleural Fluids	120	79	41	7	7	8.9	4.3	154	72	95.7	91.1	
C.S.F.	95		1	16			16.6	80		83.4		
Joint Fluids	62		4	6			9.0	60		91.0		
Abdominal Fluids	14							14		100.0		
Bronchial Aspirations	92		70	3			1.8	159		98.2		
* Miscellaneous Specimens	231	332	53	42	32	9.6	14.7	242	300	85.3	90.4	
TOTAL	2,459	2,310	863	478	247			2,844	2,063			
Sputums Examined by Smear and Culture	863			93			5.4	1,620		94.6		
Sputums Examined by Smear only	1,713											
GRAND TOTAL	5,035	2,310	863	571	247			4,464	2,063			

\* Miscellaneous specimens include swabs and pus of unspecified or unique origin, stools, milks, etc.

## DEPARTMENT OF PUBLIC HEALTH

TABLE No. 5

TESTS MADE IN RESPECT TO THE USE OF ANTIBIOTICS PENICILLIN, STREPTOMYCIN, AUREOMYCIN, TERRAMYCIN AND CHLOROMYCETIN  
— CALGARY —

Penicillin sensitivity of a variety of organisms isolated from cases of infection .....	953
Streptomycin sensitivity of Mycobacterium tuberculosis isolated from cases .....	30
Ditubin sensitivity of Mycobacterium tuberculosis isolated from cases .....	30
Streptomycin sensitivity of other bacteria .....	953
Aureomycin sensitivity of other bacteria .....	953
Terramycin sensitivity of other bacteria .....	953
Chloromycetin sensitivity of other bacteria .....	953
Thiosulfil sensitivity of other bacteria .....	43
Erythromycin sensitivity of other bacteria .....	900
Furadantin sensitivity of other bacteria .....	63
Achromycin sensitivity of other bacteria .....	50

TABLE No. 6

BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER, DYSENTERY AND RELATED INFECTIONS

— EDMONTON —

Stool and urine cultures .....	1,156
Blood cultures .....	1,944
Bloods examined by agglutination test for typhoid and related fevers, undulant fever and tularaemia .....	2,094
Other materials—Water 1, rectal discharge 1, vomitus 1, occult blood 35, emesis 2, ear swab 1, vaginal swab 1, others 5 .....	47

## DETAILS OF RESULTS

Source	Salmonella typhi	S. paratyphi B.	Other Salmonella	Shigella	Negative	Total
Stool cultures .....	9	2	14	203	888	1,116
Urine cultures .....	0	0	0	3	37	40
Blood cultures .....	7	2	0	0	1,935	1,944
Vaginal swab .....	0	0	1	0	0	1
Total isolations .....	16	4	15	206	2,860	3,101
Number of cases .....	6	3	12	172	0	193
Number of carriers .....	1	0	0	0	0	1

## DETAILS OF SALMONELLA Cases &amp; Carriers

S. typhosa .....	6	1
S. paratyphi B. ....	3	
S. typhi-murium .....	7	
S. thompson .....	3	
S. heidelberg .....	1	
S. derby .....	1	
Total .....	21	1

## SHIGELLA ISOLATIONS

	Case
Sh. sonnei .....	172
Sh. flexneri 2 a .....	6
3 .....	21
Y .....	2
Alkalescens dispar .....	2
Total .....	203
	172

Cultures received from Animal Sources Supplied by Dr. E. E. Ballantyne, Provincial Veterinarian.

## SALMONELLAE FROM POULTRY

S. heidelberg .....	7
S. typhi-murium .....	69
S. gallinarum .....	33
S. oranienburg .....	2
S. bareilly .....	69
S. bredeney .....	6
S. thompson .....	71
S. kentucky .....	3
S. give .....	2
S. bovis morbificans .....	2
S. newington .....	2
S. derby .....	2
Total .....	268

## SALMONELLAE FROM ANIMAL SOURCES

S. typhi-murium .....	7
S. cholerae-suis .....	2
S. newport .....	1
S. tennessee .....	1
Total .....	11

TABLE No. 6A

## INTESTINAL PARASITES

— EDMONTON —

Number of specimens examined and found negative for parasites .....	258
Showing cysts and Protozoa—E. coli .....	1
E. histolytica .....	1
Showing Ova—Ascaris lumbricoides .....	1
Enterobius vermicularis .....	10
Worms or portions of worms—Ascaris lumbricoides .....	5
Taenia solium .....	1
Total .....	6
	277



TABLE No. 6

BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER,  
DYSENTERY AND RELATED FEVERS

— CALGARY —

Stool and urine cultures .....	340
Blood cultures .....	
Bloods examined by agglutination test for typhoid and related fevers, undulant fever and tularemia .....	1,301

## DETAILS OF RESULTS

Source	Salmonella typhi	S. para-typhi B.	Other Salmonella	Shigella	Negative	Total
Stool cultures .....	4	---	15	20	230	270
Urine cultures .....	---	---	---	---	41	41
Number of bloods examined by agglutination tests and found negative .....						962
Number of bloods examined by agglutination tests and found positive .....						328
Number of bloods unsuitable for agglutination test .....						10
Number of bloods for agglutination tests broken in transit .....						3
S. typhi .....						103
S. typhi and Paratyphoid A .....						46
S. typhi and Paratyphoid B .....						19
S. typhi, Paratyphoid A and Paratyphoid B .....						55
Paratyphoid A .....						7
Paratyphoid B .....						24
B. abortus .....						29
P. tularensis .....						10

TABLE No. 6A — CALGARY

Number of specimens examined and found negative for parasites .....	42
Number of specimens examined and found positive for parasites .....	7
Parasites identified— <i>Ascaris lumbricoides</i> .....	5
<i>Ascaris lumbricoides</i> ova .....	1
<i>Enterobius vermicularis</i> ova .....	1

TABLE No. 7

## MYCOLOGICAL EXAMINATIONS

— EDMONTON —

Total number of specimens received for examination for fungi .....	775
The following pathogenic organisms were identified:	

<i>Microsporum canis</i> .....	30 specimens	<i>Epidermophyton floccosum</i> .....	1 specimen
<i>Microsporum audouini</i> .....	4 "	<i>Malassezia furfur</i> .....	3 "
<i>Trichophyton mentagrophytes</i> .....	45 "	<i>Candida albicans</i> .....	137 "
<i>Trichophyton verrucosum</i> .....	23 "	<i>Mucor</i> sp. ....	1 "
<i>Trichophyton</i> sp. ....	1 "	<i>Aspergillus wentii</i> .....	1 "
<i>Trichophyton rubrum</i> .....	17 "		

Table No. 8 shows the number of blood and cerebro-spinal fluid examinations by serological tests for the diagnosis of syphilis during the year 1954.

TABLE No. 8

	Edmonton	Calgary
Bloods examined—Presumptive Kahn .....	93,958	28,924
Standard Kahn .....	4,866	2,765
Quantitative Kahn .....	878	331
Wassermann (Kolmer) .....	5,009	2,958
Cerebro-spinal fluids examined by Wassermann (Kolmer) test .....	1,810	1,051
Bloods and cerebro-spinal fluids unsuitable for examination .....	1,481	357
Bloods and cerebro-spinal fluids "Positive" to reaction .....	669	322
Bloods and cerebro-spinal fluids "Negative" to reaction .....	93,494	29,808
Bloods giving "Reaction Not Interpreted" .....	1,587	862

TABLE No. 9

SHOWS THE NUMBER OF BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS,  
BY THE MONTH, DURING THE YEAR 1954

MONTH	PRESUMPTIVE KAHN TEST		STANDARD KAHN TEST		QUANTITATIVE KAHN TEST		BLOOD WASSERMANN		C. S. F. WASSERMANN		UNSATISFACTORY FOR EXAMINATION	
	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary
January	6,131	1,728	322	164	46	14	329	181	130	88	288	71
February	7,077	2,020	363	213	65	27	369	238	166	87	128	47
March	7,770	2,470	388	268	73	41	404	289	153	93	121	39
April	7,686	2,486	351	287	65	32	361	304	142	81	112	29
May	8,032	2,440	406	229	81	36	421	249	158	89	112	22
June	9,534	2,778	493	230	109	26	518	252	209	80	130	22
July	8,750	2,529	463	253	95	19	480	276	178	99	151	30
August	7,920	2,636	450	216	61	19	461	231	149	98	97	16
September	8,228	2,548	380	246	70	28	381	262	141	87	75	22
October	7,969	2,446	412	207	71	23	425	213	118	116	88	12
November	7,712	2,549	493	217	88	32	504	222	140	60	83	16
December	7,089	2,294	345	235	54	34	356	241	126	73	106	19
Totals	93,958	28,924	4,866	2,765	878	331	5,009	2,958	1,810	1,051	1,491	357

TABLE No. 10

SHOWS THE NUMBER OF PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TEST FOR SYPHILIS DURING THE YEAR 1954

MONTH	NEGATIVE		POSITIVE		NOT INTERPRETED		UNSATISFACTORY		TOTAL	
	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary	Edmonton	Calgary
January	460	316	—	—	4	3	36	14	500	330
February	559	442	—	—	3	3	6	7	568	452
March	662	515	1	—	3	4	6	8	672	524
April	930	648	—	—	4	4	16	8	951	661
May	1,133	660	2	—	6	6	13	3	1,152	664
June	1,532	859	—	—	4	8	20	10	1,568	874
July	1,301	790	1	—	6	5	15	3	1,323	802
August	1,250	798	1	—	5	8	9	2	1,264	809
September	974	717	3	—	9	9	9	5	995	728
October	1,089	691	3	—	6	6	9	2	1,107	696
November	1,067	704	1	—	6	6	14	2	1,088	708
December	728	519	—	—	9	9	20	4	758	523
Totals	11,685	7,659	19	8	70	36	172	68	11,946	7,771

TABLE No. 11  
EDMONTON — SHOWS THE NUMBER OF CORD BLOODS SUBMITTED FOR  
SEROLOGICAL TEST FOR SYPHILIS DURING THE YEAR 1954

CORD	Negative	Positive	Reactions Not Interpreted	Anti-Comp	Unsuitable For Examination					Total
					Fatty	Haem.	N.S.Q.	N.S.Q. Leaked	Accid. Broken	
January	810	2	3	—	11	40	15	—	—	880
February	903	—	1	—	10	17	6	—	—	937
March	1,055	—	4	—	11	19	15	—	—	1,104
April	1,052	—	3	—	9	21	8	—	—	1,093
May	990	—	—	—	10	17	7	—	—	1,024
June	1,135	—	7	—	14	16	6	4	1	1,183
July	1,060	—	7	—	16	23	6	—	—	1,112
August	997	—	3	—	9	17	9	—	—	1,035
September	1,073	2	—	—	10	19	7	—	—	1,111
October	970	—	—	—	4	11	13	1	1	1,000
November	976	—	3	—	4	10	7	—	—	1,000
December	938	—	—	—	9	8	7	—	1	963
Totals	11,959	3	31	—	117	218	106	5	3	12,442

TABLE No. 12  
SERA AND VACCINES DISTRIBUTED DURING THE YEAR 1954

	Edmonton	Calgary
Smallpox Vaccine, Glycerinated		
1 point package	2,761	3,407
10 point package	5,741	2,735
Diphtheria Toxoid		
3 x 1 c.c. amps.	678	861
4 x 1 c.c. amps. (diluted)	24	22
6 x 6 c.c. amps.	567	338
Diphtheria Toxoid and Tetanus Toxoid Combined		
4 x 1 c.c. amps.	846	874
6 x 6 c.c. amps.	324	56
Diphtheria Toxoid and Pertussis Vaccine Combined		
4 x 1 c.c. amps.	1,899	1,589
6 x 6 c.c. amps.	218	83
Diphtheria Toxoid, Pertussis Vaccine and Tetanus Toxoid Combined		
4 x 1 c.c. amps.	5,574	6,652
6 x 6 c.c. amps.	2,223	726
Diphtheria Antitoxin		
1,000 units	392	82
10,000 units	75	44
20,000 units	202	75
Diphtheria Toxin for Schick Test		
25 tests	220	228
Scarlet Fever Streptococcus Toxin		
5 x 1 c.c. vials	427	382
6 x 6 c.c. vials	139	3
Scarlet Fever Streptococcus Antitoxin		
3,000 units	93	54
9,000 units	39	68
Scarlet Fever Streptococcus Toxin for Dick Test		
10 tests	123	178
Typhoid-Paratyphoid Vaccine		
3 amps.	1,179	466
10 c.c.	1,124	256
T.A.B.T. Vaccine		
3 c.c. vial	390	463
8 person package	252	—
Pertussis Vaccine		
4 x 1 c.c. amps.	458	531
6 x 6 c.c. amps.	75	1
Tetanus Toxoid		
3 x 1 c.c. amps.	391	246
Tetanus Antitoxin		
1,500 units	1,033	1,146
10,000 units	17	57
20,000 units	37	20
Staphylococcus Toxoid		
2 c.c. vial	187	140
Staphylococcus Antitoxin		
10,000 units	4	17
20,000 units	1	4
Gas Gangrene Antitoxin		
4,000 units	77	227
10,000 units	212	60
Anti-Measles Serum		
5 c.c. vial	387	1,280
Immune Serum Globulin		
2 c.c. vial	650	—
5 c.c. vial	6,565	—
Autogenous Vaccine		
25 c.c.	40	13
Rabies		
14 dose treatment package	45	—
Rocky Mountain Spotted Fever Vaccine		
20 c.c. vial	—	11



## Division of Sanitary Engineering

H. L. HOGGE, B.Sc., *Director*

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The year 1954 was again a very busy one for the installation of new waterworks and/or sewerage systems and the extensions to existing systems. One hundred and seventy-two certificates of approval for this work were issued by the Provincial Board of Health on the recommendations of this Division. New installations completed were: 24 waterworks systems serving a total population of 11,200, and 32 sewerage systems serving a total population of 16,440. (Populations based on 1951 census figures of municipalities concerned.)

There are now 141 cities, towns or villages with water and/or sewer systems installed. Of this number, 132 have waterworks systems which serve 471,410 people, or 50.2% of the provincial total, and 122 have sewerage systems serving populations of 463,807 people, or 49.4% of the provincial total. It is interesting to note also that 36 of these municipalities have populations of less than 400. These conditions are unique in Canada and reflect the prosperity of the times as well as the level of living standards desired and being reached by the people of this province. The volume of construction accomplished has been made possible by financing this work through the Municipal Capital Expenditures Loans Act at low interest rates.

The stream sanitation work has been devoted mainly to assessing the conditions of the North Saskatchewan River, and in evaluating the waste effluents discharged to it. The expanding population of the City of Edmonton and the growth of industries in the area has resulted in larger amounts of wastes being released to the river downstream. Chemical tastes and other adverse conditions in the river downstream from the Edmonton area were observed, and detailed investigations carried out. This indicated the nature of objectionable materials found in the river and their various sources, enabling the Provincial Board to make specific requirements to those discharging wastes to the river. The effect of these changes were followed closely both at the source and in the river, and very good improvement was noted.

### *Engineering*

The continued rapid installation of municipal waterworks and sewerage systems in the province has taken a large part of the engineers' time. Final approval of detailed plans were issued to 28 municipalities for waterworks and/or sewerage systems and provisional approval of preliminary plans were issued to 26 municipalities. Extensions, and in some cases renovation, of existing systems also continued at an accelerated pace, and 79 proposals were studied and certificates of approval issued. Outstanding among this latter group are extensions to sewage treatment facilities in the Cities of Calgary and Edmonton, which had become inadequate to effectively treat the additional sewage load resulting from the cities' growth.

The following is a summary of the certificates issued by the Provincial Board of Health during 1954 covering waterworks, sewage works and hospital construction.

### A. New Systems:

#### 1. Waterworks Systems—

Type of Municipality	Number of Provisional	Certificates Issued Final	Cost of Construction
Cities .....			
Towns .....	2—\$ 377,692	2—\$ 211,530	\$ 589,222
Villages .....	18— 1,189,447	15— 1,156,684	2,346,131
Others .....		2— 249,910	249,910
Total .....	20—\$1,567,139	19—\$1,618,124	\$3,185,263

#### 2. Sewerage Systems—

Type of Municipality	Number of Provisional	Certificates Issued Final	Cost of Construction
Cities .....			
Towns .....	2—\$ 248,830	5—\$ 494,266	\$ 743,096
Villages .....	21— 1,252,118	21— 1,168,188	2,420,306
Others .....		1— 97,382	97,382
Total .....	23—\$1,500,948	26—\$1,759,836	\$3,260,784

#### 3. Storm Sewers—

Type of Municipality	Number of Provisional	Certificates Issued Final	Cost of Construction
Cities .....			
Towns .....	3—\$ 294,598		\$ 294,598
Villages .....			
Others .....			
Total .....	3—\$ 294,598		\$ 294,598

### B. Extensions to Existing Systems:

Type of Municipality	NUMBER OF FINAL CERTIFICATES ISSUED			
	Waterworks		Sanitary Sewage	
	Distribution	Supply	Collection	Disposal
Cities .....	6—\$3,530,003	2—\$555,000	5—\$1,323,218	2—\$ 850,000
Towns .....	12— 775,158	2— 219,600	8— 347,222	2— 177,200
Villages .....	5— 56,814		5— 47,792	
Others .....	1— 100,000			
Total .....	24—\$4,461,975	4—\$774,600	18—\$1,718,232	4—\$1,027,200

Type of Municipality	No. of Certificates Storm Sewer	Total Costs of All Construction Approved
Cities .....	4—\$4,906,641	\$11,164,862
Towns .....		1,519,180
Villages .....		104,606
Others .....		100,000
Total .....	4—\$4,906,641	\$12,888,648

PLUS St. Theresa Hospital, Fort Vermilion ..... \$ 76,000

Some work has been done in checking the efficiency of operation of sewage treatment plants this year and has indicated the definite need for regular checks to assist, particularly operators of small plants who do not have laboratory facilities. Assistance has also been given to operators of water treatment plants but due to other work this has been limited to municipalities requesting the service.

The Sanitary Inspection staff remained at three during 1954 and provided sanitary inspection service for areas not organized into health units, as well as assistance to health unit staffs on particular problems. Considerable time was also devoted to

reviewing and revising existing regulations and preparation of new ones.

A revised set of Plumbing and Drainage Regulations was put into effect in 1954, which incorporated much of the plumbing section of the National Building Code.

The booklet "Rural Sewage Disposal" was also revised to agree with the regulations and to provide additional information to the layman and the engineer or architect in proper methods of design and installation.

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### *Stream Sanitation*

Increased industrial activities in the Edmonton area, together with the additional growth of the City of Edmonton, has resulted in greater amounts of waste materials being released to the North Saskatchewan River. This increased the importance of maintaining supervision of the river to ensure that excessive amounts of objectionable materials were not released.

Reports of a pronounced chemical taste in the North Saskatchewan River at Battleford and Prince Albert in Saskatchewan and in the Saskatchewan River at The Pas, Manitoba, were investigated. Members of the Department of National Health and Welfare assisted in this program, particularly by making thorough studies of industries discharging wastes to the river. The Alberta Research Council, Provincial Analyst, as well as the U.S. Public Health Service, assisted in special laboratory studies. The Division's staff of Sanitary Inspectors and Plumbing Inspectors assisted in collecting field data and special samples. The results of these studies, together with analysis of the actual effluents and of the river at various points, were summarized by the Division for consideration by the Provincial Board of Health. It was indicated that the quality of the river was adverse in some respects, and that excessive amounts of certain materials were being discharged. The Provincial Board issued directives to the various industries concerned as to the amounts of specific materials which could be released to the river. These requirements were to be met by November 1st, 1954. The Provincial Board also forwarded a directive to the City of Edmonton requiring additional treatment of its sewage by November 1st, 1956. It was evident that the population served would be above 220,000 by that time, and as instructed in 1951, the City must then provide this additional treatment.

Regular checks were made of the quality of the effluents and of the river during the fall and winter to ensure that the requirements were being met and that improved river conditions maintained. The co-operation of industries in general was good and the improvement in the quality of the river water, with the exception of one short period in the second week of December, was satisfactory.

The regular analysis of river and effluent conditions are to be maintained in 1955.

The staff for this phase of the Division's work is: a chemist, a technician, and a sanitary engineer (full time summer months



and part time winter months). In addition, a chemical engineer of the engineering staff has been employed almost entirely on this work in 1954.

### *Sanitary Inspections*

The year 1954 saw the staffing of the Jasper Place Health Unit, which employs a Sanitary Inspector on a part-time basis. Also during the year the staff of the City of Calgary Health Department was increased by three Sanitary Inspectors. Thus, at the year's end there were positions for one part-time and 46 full-time Sanitary Inspectors in the Province. One of these positions was vacant.

The Town of Lac La Biche passed a compulsory pasteurization by-law during the year, becoming the thirty-sixth municipality to do so. New pasteurizing plants were opened at Evansburg, Grande Centre and Lac La Biche. The plant formerly operated at Raymond ceased operations, pasteurized milk being supplied to that town from other sources. At the year's end there were 79 pasteurizing plants in the Province supplying milk to the public, while a further six operated for the benefit of schools or institutions.

Meat canning licenses were issued during the year by the Provincial Board of Health to two plants, one under the supervision of the City of Calgary Health Department, the other under the supervision of the City of Edmonton Health Department.

A number of new waste disposal grounds were established during the year throughout the province. In most instances the sites selected were approved before use by the Division of Sanitary Engineering or the Health Unit concerned. In this, good co-operation was received from municipalities and other Departments of the Government.

Provisional Certificates of Approval were issued covering the sites selected for 16 new cemeteries during the year. Prior to issue of the certificates, inspections were made by the Division of Sanitary Engineering or the Health Unit concerned. Co-operation was extended to the Department of Highways and to Municipal Districts in regard to sites adjacent to highways and district roads. Final Certificates were issued to 20 cemeteries which had completed the establishment procedure provided by the cemetery regulations.

The three Provincial Sanitary Inspectors employed in the Division of Sanitary Engineering, operating from offices in Edmonton and Calgary, continued the program of assisting Local Health Authorities in dealing with sanitation matters. In carrying out this program, a total of 1,169 inspections were made during the year.

Two hundred and thirty-six inspections were made at milk handling premises, including dairy farms and pasteurizing plants. The number of these inspections which can be made at dairy farms is limited by the location of these premises, frequent poor side road conditions, and the need to carry out

other inspections of an equally essential nature. The abnormally wet summer further aggravated these conditions in 1954. Some improvements were noted in certain districts over those prevailing in previous years, nevertheless it appears that conditions under which raw milk is supplied in many communities are not satisfactory.

The inspection program brought about improvement in some pasteurizing plants. At the same time it revealed that in some plants, operations were carried out in an extremely hazardous manner. In view of the dangers which may be associated with unsanitary milk and the reliance of the public on pasteurized milk, it appears that frequent inspection of milk plants remains very necessary. In addition to the inspections at milk plants, the Division co-operated with the Dairy Branch, Department of Agriculture, by making available the services of a Provincial Sanitary Inspector for the team which judged milk plants, creameries and cheese factories for competitions receiving the support of the Dairy Branch.

Four hundred and twenty-nine inspections were made at restaurants and other food handling establishments. The restaurant inspection program has continued to produce gradual improvement in this industry from a public health viewpoint, though from time to time premises are inspected which, contrary to the trend, are found very unsatisfactory. Local Boards of Health and local officials are usually very interested in this part of the Division's activities, and are very co-operative.

In response to a request from officials of the National Park, the Sanitary Inspector's Section co-operated in putting on a two-day course for food handlers in Banff. This course was well attended by employees of Banff restaurants, who were taught basic principles of sanitation in food handling.

The Provincial Sanitary Inspectors made 149 inspections at tourist camps, industrial and construction camps, and other types of living accommodation. Improved sanitary conditions were obtained in camps connected with construction projects in areas where some follow-up was possible. In response to complaints, some sawmill camps were inspected. Sanitation standards at these camps are frequently very low, though there are many notable exceptions. Follow up inspections and routine inspections of these camps are difficult to arrange due to the large number, the remote locations and the limited operating season.

Ninety-three inspections of wells and other private water supplies were made. As a result of these inspections the Inspectors were able to advise the users concerning proper improvements and other measures to ensure safety of the water supply.

Inspections were made at 65 waste disposal grounds, many of these being located in the eastern portion of the province where rats are likely to become established. In many cases it was found that improvements recommended following previous inspections had been carried out.

In addition to their inspectional duties, Provincial Sanitary



Inspectors investigated two cases of typhoid and an outbreak of diphtheria to assist the Division of Communicable Disease.

During the year 1954, the Provincial Sanitary Inspectors continued to provide a service in those portions of the Province outside cities and health units to approximately 200,000 persons. The areas receiving this service are large. It is not possible for the present staff to cover all sanitation matters, but the Provincial Sanitary Inspectors try to provide a basic coverage in some of the more important matters in the field of sanitation.

### *Plumbing Inspections*

This year saw the new Provincial Plumbing and Drainage Regulations become a reality. This new set of regulations replaces the original regulations which were drawn up in 1938. The new regulations are very similar to the National Building Code of Canada. However, it was necessary to deviate from the provisions of the National Building Code in some respects because of the climatic conditions which are peculiar to this province.

A new "Rural Sewage Disposal" booklet was prepared during 1954 to replace the previous booklet. The new booklet is designed to assist the layman with the installation of a sewage disposal system so that it will comply with good engineering practices and the provisions of the regulations.

During the year this office issued 362 plumbing permits at a charge of \$3,196.75. These figures compare very favourably with those of last year.

The value of the plumbing installed throughout the province during 1954 is approximately 7½ million dollars. The number of plumbing fixtures installed was as follows: Water closets, 18,801; lavatories, 19,491; baths, 11,992; sinks, 13,348; laundry tubs, 1,216; special fixtures, 4,876. The number of privies eliminated through the installation of plumbing was 2,111.

This office viewed a total of 23 school plans as forwarded by the Department of Education. We also viewed 15 hospital plans, as well as a number of plans regarding the construction of various large buildings located on the eastern outskirts of the City of Edmonton, as well as in various oil development areas of the province.

The new town of Drayton Valley, being constructed under the supervision of the Department of Municipal Affairs, has required a considerable amount of time and guidance with regard to the design and installation of plumbing facilities in some of the various types of buildings which are only found in towns of this kind.

It was necessary for this Division to arbitrate a number of disputes which arose between urban plumbing inspectors and plumbing contractors. In each case the dispute was caused by a misunderstanding by one or the other of the parties concerned.

The School Boards of Newell County and Medicine Hat School Division converted most of their schools' sewage facilities



to water carried ones in place of the septic toilet systems previously used. Odors and maintenance problems were the chief reasons for this conversion.

A water supply survey was carried out in the Canmore district. Water was tested for bacteria and nitrate content. As a result of this survey, it was determined that the underground source, though near the surface, was safe except for individual cases which required that some attention be given to the wells in question.

This Division assisted with the design of an approved steel septic tank now being marketed by an Alberta firm. Assistance with the design of an approved pre-cast concrete septic tank, complete with a syphon chamber, was also given to another Alberta firm. This type of septic tank is now being marketed at a saving to the customer of approximately one hundred dollars per tank.

The number of urban municipalities responsible for their own plumbing inspections increased again this year due to installation of waterworks and sewerage systems.

## Division of Hospital and Medical Services

M. G. McCALLUM, M.D., D.P.H., *Director*

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### INTRODUCTION

The Division of Hospital and Medical Services administers the legislation whereby the Department of Public Health provides, out of general revenue of the Province, maternity hospitalization for residents; hospitalization, medical, dental, optical and special treatment services for social service groups and their dependents who qualify for these services. The Division is also responsible for the administration of the Provincial-Municipal Hospitalization Plan, supervision of Municipal Hospital Districts, supervision of Nursing Aide School, inspection of hospitals, hospital grants, hospital construction grants, orthopaedic care grants, poliomyelitis hospitalization and medical care, nurses' training grants, and home confinement grants.

The following report presents information of the foregoing, as well as statistical tables and diagrams.

## STATISTICAL SUMMARY

The Provincial program for the hospitalization of Alberta residents remained relatively unchanged from 1953. Expenditures continued to rise, possibly reflecting the population growth of the Province and increased utilization of services available. The amounts expended during the calendar year 1954 for hospitalization were as follows:

Provincial-Municipal Hospitalization Plan .....	\$2,636,836.48
Maternity Hospitalization .....	2,179,150.85
Social Service Recipients (Pension Group) Hospitalization .....	1,962,398.45
Poliomyelitis Hospitalization .....	973,697.85
Per Diem Hospitalization Grant .....	1,345,437.80
Orthopaedic Hospitalization Grant .....	51,631.20
Psychiatric Hospitalization in General Hospitals .....	51,226.00
Out-post Hospital Grant .....	16,460.20
Sub Total .....	\$9,216,838.83
* Mental Hospitalization (Fiscal year 1954-55) .....	4,667,093.43
* Tuberculosis Hospitalization (Fiscal year 1954-55) .....	1,390,556.92
* Cancer Hospitalization (Fiscal year 1954-55) .....	61,327.51
Total .....	\$15,335,816.69

The items marked with an asterisk (\*) are not administered through the Division of Hospital and Medical Services and will appear no further in this report.

Other expenditures through the Hospital and Medical Services Division for the calendar year were as follows:

Social Service Recipients (Medical, Dental, Optical, etc.) .....	\$ 757,805.55
Poliomyelitis (Medical, Surgical, etc.) .....	146,091.84
Maternity (confinements at home) .....	14,000.00
Nurses' Training Program .....	117,900.00
Hospital Construction Grants (Fiscal year 1954-55) .....	641,548.50
Total .....	\$1,677,345.89

The general hospitals in the Province continued being classified into groups according to the facilities and services they provide. Their number was reduced in 1954 with the closing of the Nordegg General. The number of hospitals in each group is as follows:

Group A .....	6
Group B .....	8
Group C .....	35
Group D .....	46
Group E .....	4
Total .....	99

Patient days were distributed among the hospital groups in the following manner:

	Adults and Children	Newborns
Group A .....	49.3%	47.8%
Group B .....	13.7%	13.4%
Group C .....	22.3%	23.0%
Group D .....	13.4%	14.8%
Group E .....	1.3%	1.0%
	100.0%	100.0%

The distribution of patient days by the month is shown for each hospital group, excluding the D.V.A. Division of the University Hospital, on Table 1. Diagram 1 gives the same information in graphical form.



TABLE No. 1—PATIENT DAYS BY HOSPITAL GROUP AND MONTH, 1954  
(Excluding D.V.A. Division, University Hospital and Calgary Alberta Red Cross)

	January	February	March	April	May	June	July	August	September	October	November	December	Year
ADULTS AND CHILDREN													
Group A Hospitals	73,557	70,332	77,872	73,489	75,235	69,821	68,481	68,328	67,986	72,362	72,641	69,049	859,153
Group B Hospitals	20,885	20,082	22,183	21,457	20,893	19,477	18,096	18,684	18,208	19,480	20,165	18,730	238,340
Group C Hospitals	35,185	33,387	38,098	35,143	34,164	30,475	30,274	30,586	29,384	30,207	32,239	30,599	389,741
Group D Hospitals	21,550	20,224	22,108	21,087	20,127	19,340	18,324	17,788	17,377	18,519	19,128	18,646	234,218
Group E Hospitals	1,825	1,688	1,883	1,716	1,781	1,800	1,941	1,913	1,969	1,944	1,813	1,837	22,110
PROVINCIAL TOTAL	153,002	145,713	162,144	152,892	152,200	140,913	137,116	137,299	134,924	142,512	145,986	138,861	1,743,562
NEWBORN													
Group A Hospitals	10,189	9,683	10,717	10,599	11,167	10,557	10,359	10,568	10,516	9,856	9,641	9,823	123,675
Group B Hospitals	2,902	2,786	3,239	3,331	2,972	2,846	3,049	2,697	2,787	2,839	2,706	2,557	34,711
Group C Hospitals	4,882	4,341	5,758	5,374	5,368	4,838	5,304	5,218	4,829	4,585	4,330	4,579	59,406
Group D Hospitals	3,203	2,898	3,151	2,990	3,311	3,308	3,565	3,218	3,216	3,215	3,125	3,096	38,296
Group E Hospitals	197	199	230	191	185	185	216	303	284	233	235	193	2,651
PROVINCIAL TOTAL	21,373	19,907	23,095	22,485	23,003	21,734	22,493	22,004	21,632	20,728	20,037	20,248	258,739

DIAGRAM No. 1

## DISTRIBUTION OF PATIENT DAYS BY HOSPITAL GROUP

(Excluding Newborn days, D.V.A. Division University Hospital, and  
Calgary Alberta Red Cross)

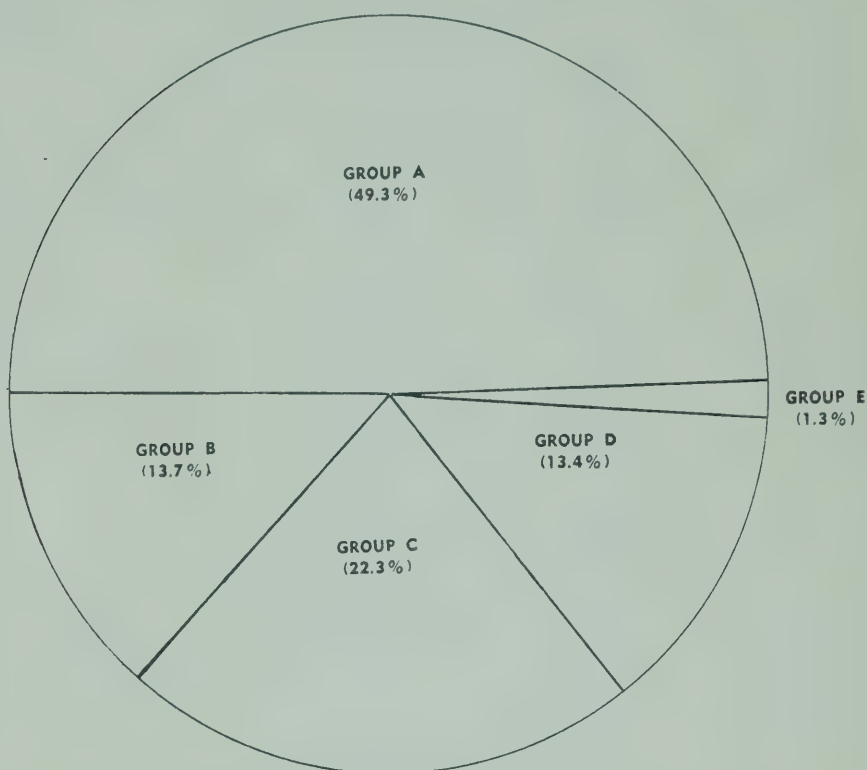


Table 2 gives the monthly movement of patients for adults, children and newborn. Again, data for the D.V.A. Division of the University of Alberta Hospital are excluded. Diagram 2 shows monthly admissions and births in graphical form.

TABLE No. 2—MONTHLY MOVEMENT OF PATIENTS, 1954

(Excluding D.V.A. Division, University Hospital)

	January	February	March	April	May	June	July	August	September	October	November	December	Year
ADULTS AND CHILDREN	In at the beginning	5,126	5,139	5,264	5,268	4,960	4,513	4,228	4,608	4,683	4,549	5,091	4,230
	Admissions	16,695	18,756	18,156	17,876	16,314	16,541	16,225	15,273	16,108	16,723	16,195	201,475
	Total under care	21,821	23,895	23,420	23,144	21,274	21,054	20,453	19,881	20,791	21,272	21,286	205,705
	Discharges	16,384	18,335	17,854	17,895	16,491	16,555	15,563	14,973	15,952	15,873	16,772	198,051
	Deaths	298	296	298	289	270	271	282	225	290	308	315	3,455
	In at the end	5,139	5,264	5,268	4,960	4,513	4,228	4,608	4,683	4,549	5,091	4,199	4,199
NEWBORNS	In at the beginning	686	694	697	772	744	761	679	728	735	629	659	587
	Live Births	2,402	2,800	2,745	2,878	2,786	2,904	2,821	2,793	2,608	2,524	2,591	32,397
	Total under care	3,088	3,494	2,442	3,650	3,530	3,665	3,500	3,521	3,343	3,153	3,250	32,984
	Discharges	2,355	2,742	2,638	2,868	2,779	2,942	2,721	2,740	2,643	2,457	2,621	31,870
	Deaths	39	55	32	38	40	44	51	46	51	37	49	534
	In at the end	694	697	772	744	761	679	728	735	629	659	580	580



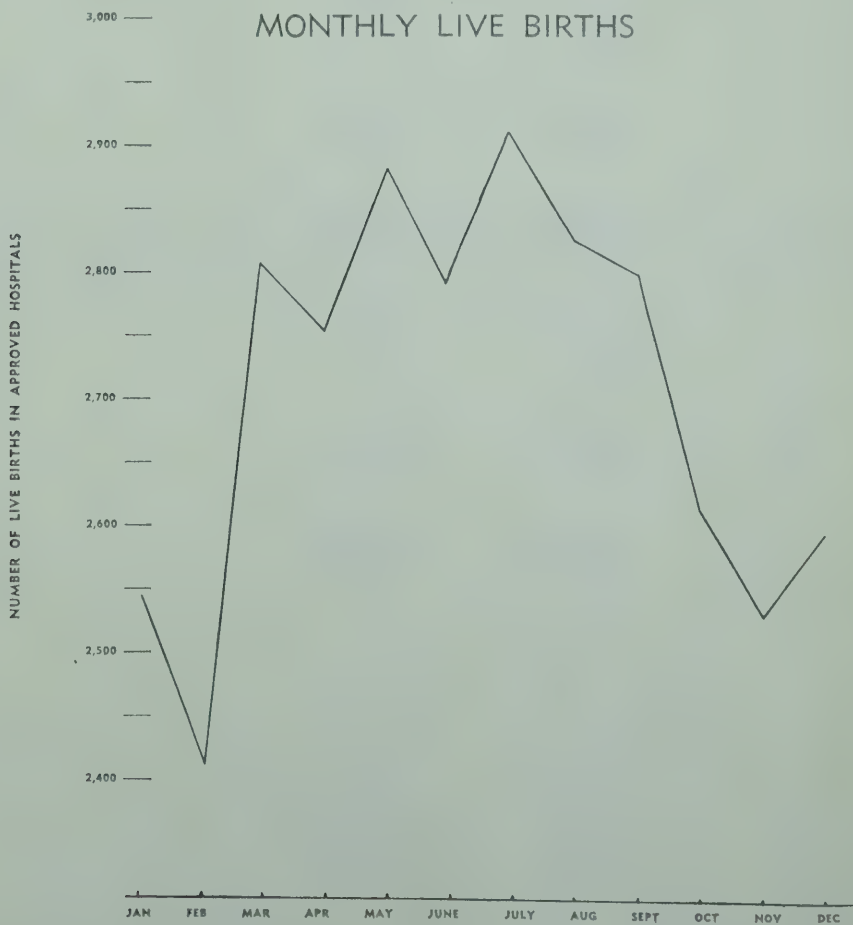
DIAGRAM No. 2A

MONTHLY ADMISSIONS OF ADULTS AND CHILDREN



DIAGRAM No. 2B

MONTHLY LIVE BIRTHS



The majority of patients received their hospitalization under one of a number of types of benefits. The distribution of these patients in hospital, according to the type of benefits, was as follows:

Provincial—Municipal Hospitalization Plan		
(a) Standard Ward Care Only	22.3%	
(b) Complete Hospitalization	23.6%	45.9%
Maternity Hospitalization Benefits		15.2%
Social Service Recipients Hospitalization Benefits		
Old Age Pension Group	6.6%	
Mother's Allowance	0.5%	
Blind Pension	0.2%	
Widow's Allowance	0.2%	7.5%
Polio and Orthopaedic Benefits		0.5%
Residents not eligible for any of above		26.3%
Indians		0.9%
Others		3.7%
		100.0%

Table 3 records the above distribution of patients according to type of benefit. The average length of stay in hospital per patient is shown, as well as similar data for 1953 and 1952. A marked decline in the number of patients not eligible for benefits under any provincial hospitalization plan has taken place. This was more than offset by the increase in the number of patients covered under The Provincial-Municipal Hospitalization Plan.

The information on Table 3 is shown in Diagrams 3 and 4 in graphical form.

TABLE No. 3—LENGTH OF STAY IN HOSPITAL, BY PATIENT TYPE

	1954		1953		1952	
	No. of Patients Discharged or Deceased, to nearest 100	Average length of stay	No. of Patients Discharged or Deceased, to nearest 100	Average length of stay	No. of Patients Discharged or Deceased, to nearest 100	Average length of stay
RECIPIENTS OF:						
Municipal Hospitalization Benefits						
(a) Standard Ward Only	44,800	7.9	72,400	7.6	65,900	7.6
(b) Standard Ward & Special Services	47,400	7.8	13,200	8.1	N.A.	N.A.
Maternity Hospitalization Benefits	30,600	7.8	28,300	7.9	26,000	8.2
Old Age Benefits	13,300	15.7	12,200	16.2	10,900	15.9
Mother's Allowance	1,100	7.0	900	7.6	900	6.9
Blind Pension	300	15.8	300	14.4	300	13.5
Widow's Allowance	300	11.9	200	12.2	(-)	10.5
Residents not eligible for any of above	53,000	7.6	55,400	7.6	66,800	7.8
*Others	8,800	9.2	9,100	9.7	9,000	10.7

\* Excluding polio, orthopaedic and psychiatric patients.

DIAGRAM No. 3

## DISTRUBTION OF PATIENTS UNDER CARE BY TYPE

(Excluding Newborn and D.V.A. Division of University Hospital)

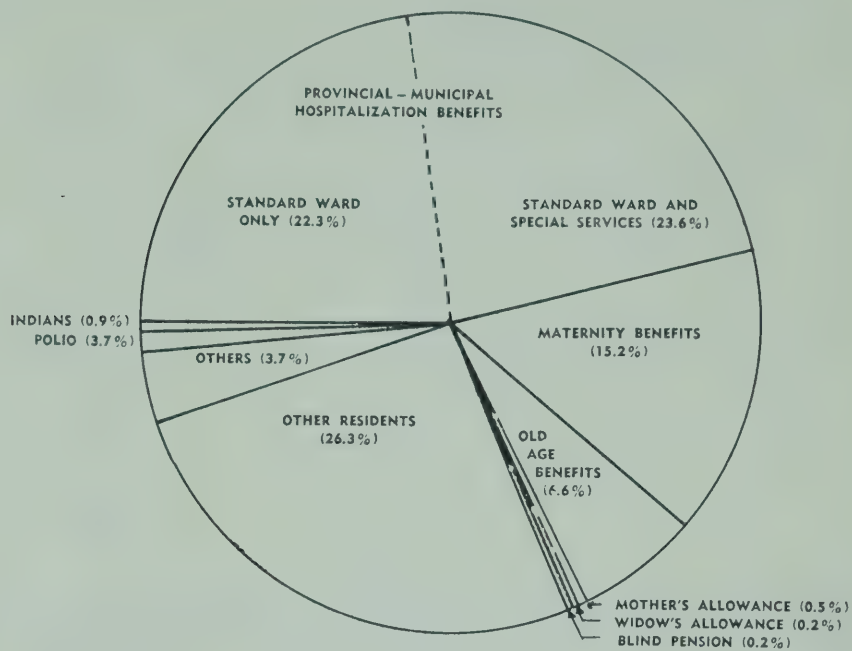
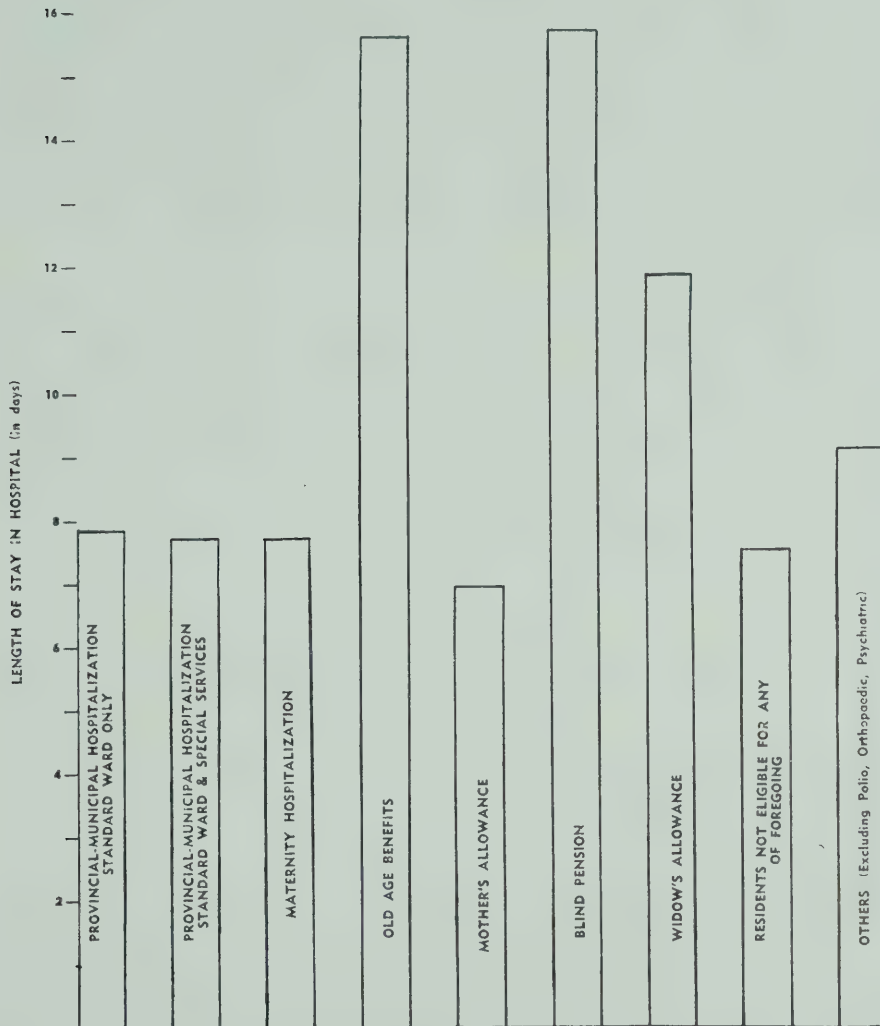




DIAGRAM No. 4

LENGTH OF STAY IN HOSPITAL BY TYPE OF  
HOSPITALIZATION BENEFIT

(Excluding Newborn and D.V.A. Division of University Hospital)



The average length of stay in hospital by age group is shown in Table 4, and the same information is provided in graphical form in Diagram 6. For comparative purposes the table contains data for 1951, 1952, and 1953.

It will be noted that the larger proportion of admissions were in the younger age group, 65% under the age of 40, with a lower average stay, 53% of the days under the age of 40. On examination of the data for the different years, there are two significant changes. First, the length of stay in the younger age group (under 20 years) showed an increase in 1953 and 1950. This is partially explained by the fact that poliomyelitis cases were included in the 1953-54 data, but not the 1951-52 data. The years 1953 and 1954 were also poliomyelitis epidemic years, involving principally the age group under 20 years. The average stay of poliomyelitis cases in 1953 and 1954 were 62.9 and 86.2.

Secondly, there was a marked increase in the total days in 1954 for the age groups 65 and over. On examining the hospital utilization by the Social Service Recipients, we find that there was an increase in the number of recipients from 28.5 in 1951 to 32.5 in 1954 per thousand population, and an increase in hospital days for this group from 5,780 in 1953 to 6,674 in 1954 per thousand recipients. These increases, both in relative numbers and in hospital days per thousand recipients, are a major factor accounting for the increase in the hospital days of the age group over 65 years, and is also an indication of the increase of the aged in our population.

TABLE No. 4—AVERAGE LENGTH OF STAY IN HOSPITAL BY AGE GROUP OF PATIENTS DISCHARGED OR DECEASED

(Excluding D.V.A. and Newborn)

AGE GROUP	1954		1953		1952*		1951*	
	Patients Discharged or Deceased	Average length of stay	Patients Discharged or Deceased	Average length of stay	Patients Discharged or Deceased	Average length of stay	Patients Discharged or Deceased	Average length of stay
0-4	20,938	7.4	19,963	7.1	18,148	6.2	17,118	6.2
5-9	13,682	6.0	13,996	6.1	12,598	5.5	11,887	5.4
10-19	20,680	6.9	20,246	7.2	19,700	6.5	17,805	6.7
20-29	45,539	7.0	44,210	7.0	41,141	6.8	38,355	7.0
30-39	31,041	7.5	29,881	7.4	27,902	7.4	25,251	7.7
40-44	10,247	8.1	9,487	8.3	9,113	8.5	8,335	8.5
45-49	8,844	9.1	8,546	8.9	8,003	9.0	7,345	9.7
50-54	8,419	10.1	8,032	9.7	7,561	10.0	6,825	10.7
55-59	6,854	11.3	6,774	11.1	6,511	10.9	6,106	11.0
60-64	7,309	12.5	7,297	12.5	6,908	12.8	6,481	12.9
65-69	8,475	13.5	7,841	13.5	7,124	13.4	6,154	13.7
70-74	8,034	15.1	7,411	15.3	6,772	14.7	5,925	15.3
75 and Over	10,426	16.5	9,318	16.8	8,214	16.4	7,299	17.1
Not Stated	111	9.5	154	7.6	64	5.6	80	7.9
TOTAL	200,599	8.8	193,156	8.7	179,759	8.4	164,966	8.6

\* Does not include Polio

DIAGRAM No. 5

AVERAGE LENGTH OF STAY IN HOSPITAL OF PATIENTS  
DISCHARGED OR DECEASED BY AGE GROUP

(Newborn Excluded)

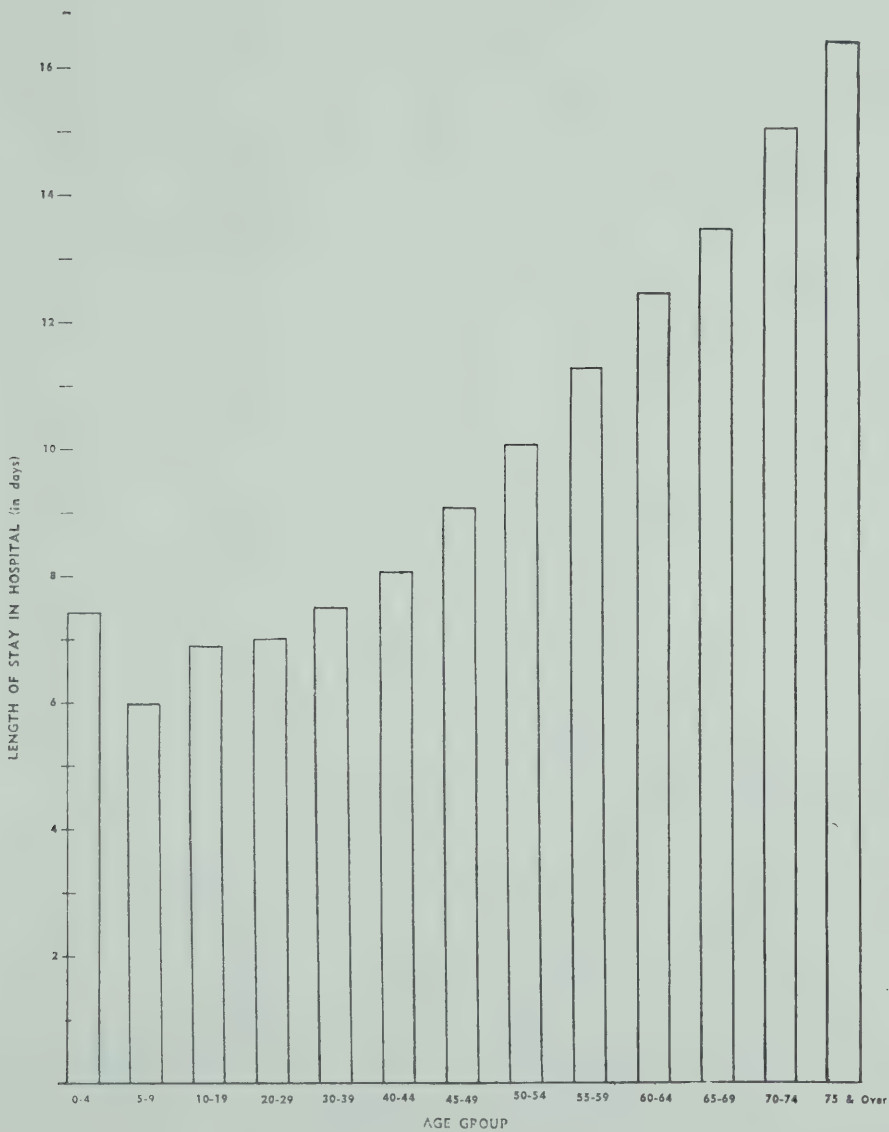
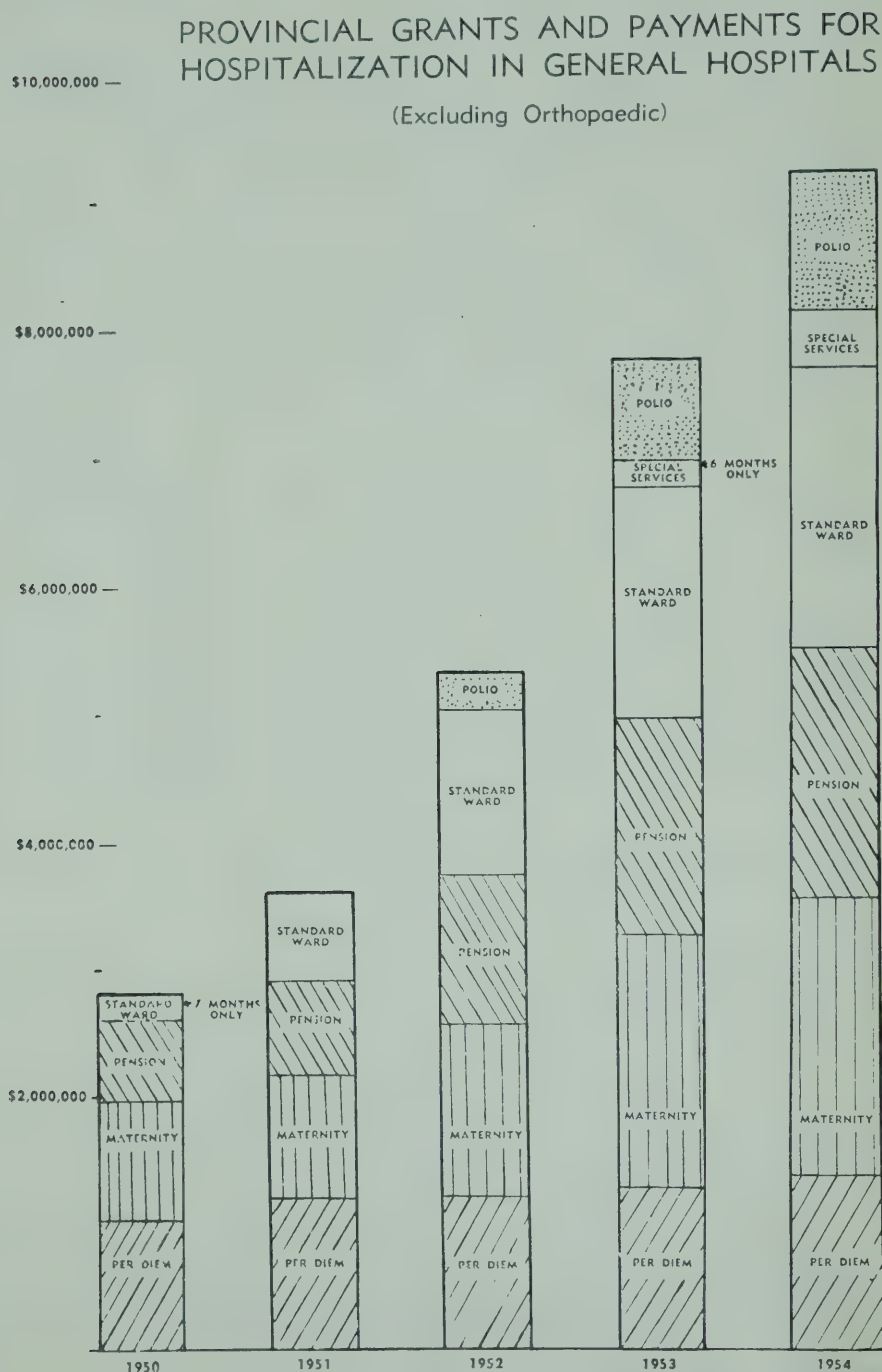


Diagram 6 illustrates the expenditures of the Department of Public Health for active treatment care in general hospitals for a period of five years. The term "per diem" refers to the 70 cent per diem grant paid to hospitals on behalf of hospitalized residents and persons who qualify under the Provincial-Municipal Hospitalization program. "Standard Ward" refers to the Provincial-Municipal Hospitalization Plan for standard ward care which came into effect in June, 1950. "Special Services" refers to the special hospital services that are paid for under the plan following its extension in July, 1953.



DIAGRAM No. 6



### ALBERTA APPROVED HOSPITALS

"Approved Hospitals" in Alberta are active treatment public hospitals which receive a per diem allowance on behalf of all residents hospitalized therein. Not included under this term are chronic hospitals, mental hospitals, tuberculosis sanatoria, private hospitals and nursing homes. The statistics in this section pertain to approved hospitals only.

At December 31st, 1954, there were 99 approved hospitals operating in the Province, divided as follows:



	1954	1953
Municipal .....	52	51
Municipally owned and Community .....	7	7
Denominational .....	36	37
Industrial .....	1	2
Service Group .....	2	2
Provincial .....	1	1
	<hr/> 99	<hr/> 100

The Isolation Hospitals in Edmonton, Calgary and Lethbridge are included with the respective city hospitals. The hospital at Hythe is a sub-hospital of the Grande Prairie Municipal Hospital and therefore is not counted separately. The number of approved hospitals in the Province was decreased in 1954 by the closing of the General Hospital at Nordegg. The number of Municipal Hospitals was increased by one when the Battle River Hospital at Manning became a Municipal Hospital effective November 1st, 1954.

The following Tables are submitted, giving the details of each approved hospital in the Province.

Table 5 — Bed capacity, bed complement, and movement of patients.

Table 6 — Patient days, average stay in hospital, and occupancy

Table 7 — Staff.

Table 8 — Operating expenditures.

Table 9 — Revenue for operating purposes.

Table 10 — Distribution of hospital operating expenditures.

Table 11 — Grant paid directly to hospitals.

For convenient reference the information in the above tables is herewith presented in summary form, together with corresponding entries for 1953 for comparative purposes:

#### ACTIVE TREATMENT HOSPITAL BEDS

	1954		1953	
	Capacity	Complement	Capacity	Complement
Beds and Cribs .....	6,546	6,910	6,371	6,810
Bassinets .....	1,144	1,283	1,083	1,242
	<hr/> 7,690	<hr/> 8,193	<hr/> 7,454	<hr/> 8,051
Beds per thousand population excluding bassinets .....	6.3	6.7	6.3	6.7
Beds per thousand population including bassinets .....	7.4	7.9	7.4	7.9
Patients accommodated per bed per year (excluding newborns) .....		29.7		29.0

#### PATIENT DAYS

	1954	1953
Adults and Children .....	1,825,710	1,731,621
Newborn .....	258,739	247,087
	<hr/> 2,084,449	<hr/> 1,978,708
Patient days (excluding newborn) per capita of population .....	1.8	1.7



## PATIENTS UNDER CARE DURING THE YEAR

	1954	1953
Adults and Children .....	207,023	198,847
Average stay .....	8.9	8.8
Newborn .....	32,984	30,620
Average stay .....	8.0	8.7
Total .....	240,007	229,467
Average in hospital daily .....	5,711	5,421
% of population in hospital daily .....	0.55	0.53
% of population admitted per year (excluding newborn) .....	19.5	19.1
Live births in approved hospitals .....	32,397	30,075
Stillbirths .....	423	447
Percentage of births in approved hospitals to total births in Province .....	96.4 %	96.0 %

## STAFF — FULL-TIME AND PART-TIME

	1954	1953
Total Staff .....	8,460	7,544
Nurses—Graduate .....	1,784	1,562
Student .....	1,386	1,253
Nurses Aides—Certified .....	561	475
Trainee .....	21	25
Orderlies .....	176	152
Internes .....	115	111
Salaried Doctors .....	51	43
Technicians .....	269	244
Dietitians .....	61	74
All others .....	4,036	3,605

## FINANCIAL

	1954	1953
Total Revenue for operating purposes .....	\$24,029,094.85	\$21,471,679.90
Total Expenditures .....	24,015,941.87	20,946,569.04
Revenue per patient day .....	12.57	11.84
Expenditure per patient day .....	12.56	11.55
Salaries and Wages .....	57.4%	54.5%
Supplies .....	26.7%	28.4%
Purchased Services .....	2.7%	3.0%
Insurance .....	0.7%	0.8%
Depreciation .....	4.8%	4.4%
Repairs and Replacements .....	3.2%	3.4%
Interest and Exchange .....	3.4%	3.8%
Miscellaneous .....	1.1%	1.7%

TABLE No. 5—HOSPITAL BEDS AND MOVEMENT OF PATIENTS, 1954

	Bed Capacity			Bed Complement			Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths
	Beds	Bassinets	Total	Beds	Bassinets	Total	Adults and Children			Newborn			Total	Adults and Children	Newborn	Adults and Children	Newborn		
							M	F	Total	M	F	Total							
Athabasca Municipal	42	13	55	55	13	68	883	1,053	1,936	106	114	220	1,928	217	1,906	213	18	3	2
Banff Mineral Springs	42	4	46	60	6	66	374	428	802	47	36	83	774	83	762	82	11	1	1
Barhead St. Joseph's	24	7	31	38	7	45	703	902	1,605	114	109	223	1,582	220	1,562	220	22	1	1
Basano Municipal	26	6	32	25	3	28	344	478	822	44	38	82	812	118	800	79	8	2	3
Beaverlodge Municipal	9	6	15	11	3	14	200	320	520	65	54	119	512	118	499	111	10	5	3
Bentley Municipal	16	7	23	18	5	23	171	300	471	28	32	60	460	59	464	59	5	1	2
Berwyn Municipal	21	5	26	22	5	27	223	318	541	44	43	87	533	87	521	85	12	1	1
Blairmore, Crow's Nest Pass Mun.	72	6	78	54	4	58	591	868	1,459	120	104	224	1,445	222	1,402	217	41	5	2
Bonnyville Katherine H. Prittie	8	5	13	23	5	28	188	263	451	42	29	71	445	69	447	71	18	1	1
Bonnyville St. Louis	24	5	29	31	8	39	598	873	1,471	76	92	168	1,446	163	1,429	167	18	2	2
Brooks Municipal	64	13	77	64	12	76	808	1,104	1,912	135	135	270	1,889	268	1,875	259	12	8	55
Calgary General	692	56	748	577	80	657	6,895	11,268	18,163	1,727	1,590	3,317	17,783	3,267	17,279	3,189	459	70	35
Calgary General Psychiatric	328	54	382	336	60	396	4,400	8,293	12,693	1,458	1,291	2,749	12,426	2,692	12,168	2,648	272	56	35
Calgary Holy Cross	156		156	144		144	182	164	346			182	223		272		1		
Calgary Alberta Red Cross																			
Calgary Salvation Army Grace	15	18	33	15	19	34	1	332	333	159	145	314	326	296	328	295		3	3
Camrose St. Mary's	98	22	120	98	18	116	1,298	2,104	3,402	269	233	502	3,352	492	3,291	489	56	5	5
Canmore	12	4	16	N.A.	N.A.	N.A.	173	199	372	27	18	45	370	45	365	40		2	1
Canmore, Canmore																			
Cardston Municipal	24	6	30	32	12	44	382	708	1,090	113	105	218	1,074	215	1,059	205	17	12	
Carmangay, Little Bow Municipal	14	0	14	18	2	20	128	152	280	14	6	20	273	19	269	20	8		
Castor, Our Lady of the Rosary	25	8	33	28	8	36	486	740	1,226	63	65	128	1,209	126	1,203	126	13	2	1
Cereal Municipal	9	3	12	14	4	18	169	180	349	20	17	37	343	36	341	37	5		
Clareholm Municipal	42	6	48	47	7	54	490	796	1,286	86	83	169	1,263	165	1,240	167	23	1	3
Coaldale Community	13	5	18	23	6	29	255	448	703	56	45	101	691	100	678	93	11	3	1
Cold Lake, John Neil	15	3	18	22	6	28	351	445	796	87	74	161	784	158	776	154	5	2	4
Consort Municipal	22	8	30	24	8	32	223	302	525	34	51	85	516	83	499	82	9	2	1
Coronation Municipal	18	3	21	20	6	26	246	283	529	40	34	74	523	72	519	74	3	2	2
Daysland Providence	16	0	16	25	5	30	332	482	814	31	36	67	797	65	783	65	13	2	1
Desmarais St. Martin's	14	2	16	24	2	26	102	175	277	11	7	18	274	18	269	16	1	1	
Didsbury Municipal	25	7	32	25	8	33	353	470	823	58	67	125	801	118	787	124	21	1	2

Drumheller Municipal	94	20	114	34	90	18	108	940	1,263	198	174	1,138	1,437	2,575	2,156	364	2,123	361	40	3	4
Eckville Municipal	29	5	34	12	31	9	40	354	531	48	40	402	571	973	873	87	865	86	8	1	1
Edmonton Beulah Home	6	2	8	6	6	6	12	4,975	7,342	70	63	70	197	267	128	127	134	131	1	1	1
Edmonton General	378	69	447	374	69	69	443	50	58	913	806	5,888	8,148	14,036	12,063	1,676	11,926	1,667	161	28	25
(a) Polio								50	58					108	83		91				
Edmonton Misericordia	294	64	358	308	62	62	370	4,043	7,688	1,145	1,089	5,188	8,777	13,965	11,500	2,190	11,299	2,157	194	34	36
(a) Polio								5	18					23	13		23				
Edmonton Royal Alexandra	573	136	709	674	125	799	6,407	11,176	2,325	2,215	8,732	13,391	22,123	17,246	4,479	16,812	4,383	372	70	50	
(a) Isolation								258	219					477	437		448		14		
Edmonton University	879	40	919	824	73	897	6,214	7,284	840	765	7,054	8,049	15,103	13,137	1,574	12,828	1,565	327	23	20	
(a) D.V.A.														1,625	1,474		1,474		59		
(b) Polio								97	110					207	141		158				
(c) Psychiatric								304	304					304	304		291		1		
Edson St. John's	37	5	42	39	8	47	638	714	102	108	740	822	1,562	1,327	1,304	207	1,304	199	27	8	2
Elk Point Municipal	51	9	60	59	8	67	907	1,305	98	76	1,005	1,381	2,386	2,181	172	2,139	164	26	8		
Elmora Municipal	16	6	22	17	6	23	73		20	20	93	155	248	200	40	192	37	9	2	3	
Empress Municipal	23	4	27	25	4	29	143	213	31	26	174	239	413	343	55	337	56	8		1	
Fairview Municipal	32	10	42	46	10	56	520	743	78	77	598	820	1,418	1,234	151	1,219	149	11		3	
Ft. Macleod Municipal	14	6	20	14	1	15	266	412	41	55	307	467	774	671	95	651	49	15			
Ft. McMurray St. Gabriels	28	6	34	27	4	31	177	236	31	22	208	258	466	405	51	406	49	2	3	2	
Ft. Vermilion St. Theresa	32	7	39	44	8	52	215	348	38	27	253	375	628	531	64	518	64	6	1		
Galahad St. Joseph's	40	9	49	42	9	51	369	506	36	30	405	536	941	861	64	855	64	13	1		
Glendon Municipal	8	7	15	18	7	25	244	362	51	25	295	387	682	597	75	592	74	3	1		
Grande Prairie Municipal	79	20	99	84	16	100	1,355	1,679	220	195	1,575	1,874	3,449	2,986	411	2,982	408	8	2	5	
(a) Hythe Sub. Hospital								127	137	28	22	155	159	314	282	50	257	48		1	
Hanna Municipal	43	9	52	50	9	59	498	712	88	85	586	797	1,383	1,197	172	1,160	167	21	2	1	
Hardisty St. Anne's	20	6	26	20	6	26	293	391	33	30	326	421	747	664	61	658	60	8	1		
High Prairie Providence	41	12	53	64	13	77	923	1,355	185	176	1,108	1,531	2,639	2,246	355	2,218	342	23	8	6	
High River Municipal	44	11	55	54	12	66	597	1,059	133	112	730	1,171	1,901	1,638	241	1,589	239	34	3	5	
Innisfail Municipal	28	8	36	42	8	50	460	578	95	73	555	651	1,206	1,018	167	993	164	26	2	2	
Islay Municipal	13	4	17	14	4	18	148	174	16	15	164	189	353	316	31	304	28	7	2	1	
Jasper Seton	26	8	34	27	8	35	266	383	63	55	329	438	767	637	117	635	114	6	3	1	
Killam General	27	6	33	28	6	34	421	653	61	63	482	716	1,198	1,052	119	1,043	121	19	2	2	
Lacombe Municipal	50	16	66	51	15	66	708	1,116	161	142	869	1,258	2,127	1,790	293	1,767	250	27	8		
La Crosse St. Catherine's	23	8	31	35	8	43	430	785	124	113	554	898	1,452	1,196	236	1,183	227	11	6		
Lamont Archer Memorial	95	12	107	95	12	107	1,014	1,399	84	75	1,098	1,474	2,572	2,374	157	2,340	156	26	1	6	
Lethbridge Galt	86	8	94	108	18	126	1,328	2,031	247	222	1,575	2,253	3,828	3,279	463	3,183	450	83	9	9	
Lethbridge Isolation																					
Lethbridge St. Michael's	181	18	199	208	56	264	2,702	4,360	537	517	3,239	4,877	8,116	6,934	1,026	6,808	1,018	99	18	15	
†Lloydminster	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	544	870	113	90	657	960	1,617	1,385	202	1,354	200	17			
McLennan, Sacred Heart	29	4	33	39	10	49	700	994	126	101	826	1,095	1,921	1,671	224	1,666	224	9	2	4	
Magrath Municipal	22	8	30	28	6	34	190	337	37	36	227	373	600	519	73	505	70	10	2	1	



TABLE No. 5.—Continued

	Bed Capacity			Bed Complement			Patients Under Care During Year						Admissions			Discharges			Deaths		
	Beds	Basinets	Total	Beds	Basinets	Total	Adults and Children			Newborn			Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Stillbirths		
							M	F	M	F	M	F	M	F	Total						
Manning Municipal	12	4	16	N.A.	N.A.	N.A.	239	385	58	53	297	438	735	621	110	615	107	3	3	1	
Mannville Municipal	15	4	19	21	31	52	234	316	47	48	281	364	645	541	92	538	92	5	1	1	
Mayerthorpe Municipal	20	8	28	31	31	62	622	609	79	80	701	689	1,390	1,212	154	1,195	155	11	11	7	
Medicine Hat General	129	10	139	140	35	175	1,666	2,705	441	410	2,107	3,115	5,222	4,299	837	4,134	823	133	11	1	
Mundare General	26	4	30	26	4	30	366	466	23	18	389	484	873	821	39	804	40	14	1	1	
Myrnam Municipal	13	3	16	20	5	25	252	374	30	23	282	397	679	616	52	610	52	6	6	1	
Nordeg	31	9	40	34	10	44	21	28	3	10	24	38	62	47	11	45	12	1	1	1	
Olds Municipal	17	5	22	34	5	39	421	665	111	123	532	788	1,320	1,066	232	1,035	229	27	3	1	
Oyen Municipal	37	9	46	44	9	53	636	786	122	107	758	893	1,651	1,400	227	1,387	224	12	4	1	
Peace River Municipal	37	9	46	44	9	53	636	786	122	107	758	893	1,651	1,400	227	1,387	224	12	4	1	
Pincher Creek, St. Vincent's	64	6	70	63	12	75	601	762	75	77	676	839	1,515	1,331	146	1,322	145	8	2	4	
Ponoka Municipal	48	11	59	48	11	59	608	992	108	105	716	1,097	1,813	1,566	209	1,549	205	25	2	3	
Provost Municipal	26	6	32	32	6	38	442	610	65	64	507	674	1,181	1,034	127	1,010	121	20	3	4	
Rayway St. Joseph's	14	6	20	20	6	26	216	365	53	44	269	409	678	576	97	564	93	9	4	4	
Raymond Municipal	18	5	23	18	6	24	200	473	47	79	247	552	799	662	125	655	125	9	4	4	
Red Deer Municipal	104	30	134	105	26	131	1,544	2,413	316	325	1,860	2,738	4,598	3,891	630	3,840	612	50	9	4	
Rimby Municipal	19	8	27	17	8	25	477	727	116	97	593	824	1,417	1,185	208	1,171	202	14	4	2	
Rocky Mt. House Municipal	35	9	44	34	10	44	512	611	71	71	583	682	1,265	1,099	140	1,083	138	22	1	3	
Smoky Lake, George McDougall	15	5	20	17	5	22	178	353	67	54	245	407	652	525	119	515	115	10	3	3	
Spirit River Holy Cross	27	4	31	21	5	26	571	715	75	65	646	780	1,426	1,255	138	1,253	134	12	1	1	
Stettler Municipal	56	8	64	69	10	79	915	1,294	165	181	1,080	1,475	2,555	2,165	342	2,142	332	33	10	3	
St. Paul, St. Theresa	37	16	53	40	9	49	1,044	1,431	145	148	1,189	1,579	2,768	2,437	285	2,416	280	20	4	2	
Taber Municipal	37	8	45	45	10	55	787	1,333	179	201	966	1,534	2,500	2,091	375	2,064	372	22	3	4	
Three Hills Municipal	25	10	35	21	12	33	246	404	59	60	305	464	769	642	118	633	116	9	1	3	
Tofield Municipal	21	5	26	26	6	32	342	601	70	68	412	669	1,081	928	135	909	131	11	1	1	
Trchu St. Mary's	31	6	37	31	6	37	125	326	39	35	164	361	525	444	72	436	70	7	1	1	
Turner Valley Municipal	13	6	19	22	5	27	245	309	35	22	280	331	611	542	56	527	56	11	1	1	
Two Hills Municipal	25	10	35	29	10	39	470	532	43	48	513	580	1,093	984	90	972	88	7	3	1	
Vegreville, St. Joseph's General	85	14	99	91	15	106	932	1,375	113	124	1,045	1,499	2,544	2,266	231	2,236	227	25	3	1	
Vermilion Municipal	37	4	41	40	10	50	588	727	97	92	685	819	1,504	1,300	188	1,271	184	23	3	1	

Viking Municipal	35	9	44	40	9	49	522	708	63	49	585	757	1,342	1,213	110	1,195	107	15	1	
Vilna Municipal	14	3	17	18	4	22	163	329	42	54	205	383	588	484	94	483	95	3	1	
Vulcan Municipal	37	7	44	37	7	44	506	740	94	66	600	806	1,406	1,230	159	1,213	157	14	1	
Wainwright Municipal	48	14	62	50	13	63	650	867	129	114	779	981	1,760	1,485	234	1,471	234	17	3	
Westlock Immaculata	75	18	93	90	18	108	1,311	1,737	146	160	1,457	1,897	3,354	2,991	300	2,959	297	37	4	
Wetaskiwin Community	60	12	72	63	13	76	959	1,385	177	189	1,136	1,574	2,710	2,312	360	2,257	356	53	12	
Willingdon General	13	3	16	25	4	29	349	473	38	31	387	504	891	806	66	800	68	13	1	
Grand Total	6,546	1,144	7,690	6,910	1,283	8,193	81,435	123,963	17,055	15,929	98,490	139,892	240,007	202,841	32,397	199,206	31,869	3,522	534	423
Less D.V.A., Orthopaedic Psychiatric, Poliomyelitis Division cases	559		559	546		546	*	902			*	902	3,011	2,688		2,693		65		
NET TOTAL	5,987	1,144	7,131	6,364	1,283	7,647	80,951	123,061	17,055	15,929	98,006	138,990	236,996	200,153	32,397	196,513	31,869	3,457	534	423

\* Does not include D.V.A. Division of University Hospital for which information was not available.

† Lloydminster Hospital is located in Saskatchewan.

Not shown: Medicine Hat Isolation.

## DEPARTMENT OF PUBLIC HEALTH

TABLE No. 6—PATIENT DAYS AND OCCUPANCY, 1954

HOSPITAL	PATIENT DAYS DURING 1954			PATIENT DAYS OF PATIENTS DISCHARGED OR DECEASED			AVERAGE STAY OF PATIENTS DISCHARGED OR DECEASED			OCCUPANCY
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	
Athabasca, Municipal	7,955	1,643	9,598	7,920	1,646	9,566	4.1	7.6	4.5	51.9
Banff Mineral Springs	14,024	671	14,695	11,548	671	12,219	14.9	8.1	14.3	91.5
Barrhead, St. Joseph's	10,489	1,462	11,951	10,293	1,473	11,766	6.5	6.7	6.5	119.7
Bassano, Municipal	5,594	687	6,281	5,535	670	6,205	6.9	8.3	7.0	59.0
Beaverlodge, Municipal	2,849	539	3,388	2,812	532	3,344	5.4	4.6	5.4	86.7
Bentley, Municipal	2,277	514	2,791	2,370	518	2,888	5.1	8.6	5.5	39.0
Berwyn, Municipal	4,112	671	4,783	4,132	663	4,795	7.8	7.7	7.8	53.7
Blairmore, Crow's Nest Pass Municipal	12,020	1,527	13,547	12,018	1,523	13,541	8.3	12.5	8.6	45.7
Bonnyville, Katherine H. Prittie	2,542	519	3,061	2,525	527	3,052	5.6	7.4	5.9	87.1
Bonnyville, St. Louis	11,533	1,390	12,923	11,479	1,474	12,953	7.9	8.8	8.0	131.7
Brooks, Municipal	12,490	1,997	14,487	12,469	2,057	14,526	6.6	7.7	6.7	53.5
Calgary, General	169,822	23,505	193,327	169,911	23,662	193,573	9.6	7.3	9.2	69.2
Calgary General, Psychiatric	4,530		4,530	4,412		4,412	11.4		11.4	62.1
Calgary Holy Cross	107,266	19,378	126,644	108,031	19,385	127,416	8.7	7.2	8.4	89.6
Calgary, Alberta Red Cross	40,027		40,027	43,774		43,774	160.3		160.3	70.3
Calgary, Salvation Army Grace	2,641	2,652	5,293	2,664	2,693	5,357	8.1	9.0	8.6	48.2
Camrose, St. Mary's	22,956	4,185	27,141	22,694	4,214	26,908	6.8	8.5	7.0	64.2
Canmore, Canmore	2,291	305	2,596	2,225	270	2,495	6.1	6.4	6.1	52.3
Cardston, Municipal	6,948	1,411	8,359	6,977	1,410	8,387	6.5	6.5	6.5	79.3
Cardangay, Little Bow Municipal	1,878	152	2,030	1,910	154	2,064	6.9	7.7	7.0	36.8
Castor, Our Lady of the Rosary	6,737	959	7,696	6,683	972	7,655	5.5	7.6	5.7	73.8
Cereal, Municipal	2,590	276	2,866	2,652	285	2,937	7.7	7.7	7.7	78.8
Claresholm, Municipal	9,837	1,389	11,226	9,739	1,395	11,134	7.7	8.3	7.8	64.2
Coldale, Community	3,990	808	4,798	3,939	787	4,726	5.7	8.2	6.0	84.1
Cold Lake, John Neil	4,122	950	5,072	4,058	945	5,003	5.2	6.1	5.4	75.3
Consort, Municipal	4,553	695	5,248	4,074	697	4,771	8.0	8.3	8.1	56.7
Coronation, Municipal	4,702	667	5,369	4,771	682	5,453	9.1	9.2	9.1	71.6
Dayslands, Providence	5,953	564	6,517	5,955	571	6,526	7.5	8.5	7.6	101.9
Desmarais, St. Martin's	2,759	124	2,883	2,697	117	2,814	10.0	6.9	9.8	54.0
Didsbury, Municipal	7,161	978	8,139	7,107	1,021	8,128	8.8	8.2	8.7	78.5
Drumheller, Municipal	21,151	2,682	23,833	21,286	2,660	23,946	9.8	7.3	9.5	61.7
Eckville, Municipal	4,419	597	5,016	4,425	594	5,019	5.1	6.9	5.2	41.8



Edmonton, Beaulah Home	1,877	2,404	4,281	1,924	2,435	4,359	14.4	18.4	16.4	85.7
Edmonton, General	108,513	13,477	121,990	107,728	13,736	121,464	8.9	8.1	8.8	78.7
(a) Polio	9,161	15,991	9,161	8,630	16,005	8,630	8.5	7.3	93.8	92.7
Edmonton, Misericordia	99,484	15,991	115,475	97,308	16,005	113,313	8.5	7.3	8.3	92.7
(a) Polio	1,089	1,089	1,089	1,691	1,691	1,691	73.5	---	73.5	---
Edmonton, Royal Alexandra	161,030	36,486	197,516	156,584	36,362	192,946	9.1	8.2	8.9	86.7
(a) Isolation	6,765	14,838	6,765	7,972	14,963	7,972	17.3	---	17.3	29.0
Edmonton, University	168,987	14,838	183,825	170,208	14,963	185,171	12.9	9.4	12.6	73.4
(a) D.V.A.	42,121	---	42,121	45,398	---	45,398	29.6	---	29.6	---
(b) Polio	18,927	---	18,927	17,917	---	17,917	112.7	---	112.7	---
(c) Psychiatric	3,589	2,038	3,589	3,575	2,039	3,575	12.2	---	12.2	49.2
Edson, St. John's	8,147	1,328	10,185	8,252	1,338	10,291	6.2	9.9	6.7	60.3
Elk Point Municipal	15,622	379	16,950	15,636	376	16,974	7.2	7.8	7.3	83.9
Elmora, Municipal	2,404	577	2,783	2,047	590	2,423	10.2	9.6	10.1	41.2
Empress, Municipal	3,837	577	4,414	3,708	590	4,298	10.8	10.5	10.7	45.7
Fairview, Municipal	9,257	1,220	10,477	9,169	1,213	10,382	7.5	8.1	7.6	79.3
Fort MacLeod, Municipal	5,431	742	6,173	5,362	759	6,121	8.1	8.0	8.0	106.3
Fort McMurray, St. Gabriel's	2,921	457	3,378	3,014	462	3,476	7.4	8.9	7.6	28.6
Fort Vermilion, St. Theresa	12,528	567	13,095	7,048	568	7,616	13.5	9.6	12.9	107.3
Galahad, St. Joseph's	5,250	624	5,874	5,162	627	5,789	6.0	9.6	6.2	36.0
Glendon, Municipal	3,496	540	4,036	3,473	541	4,014	5.8	7.2	6.0	119.7
Grande Prairie, Municipal	22,996	2,847	25,843	22,156	2,916	25,072	7.4	7.1	7.4	91.3
(a) Hythe Sub-Hospital	1,670	423	2,093	1,610	423	2,033	6.3	8.6	6.6	45.8
Hanna, Municipal	10,640	1,540	12,180	11,051	1,521	12,572	9.4	9.0	9.3	67.8
Hardisty, St. Anne's	6,565	680	7,245	6,551	676	7,227	9.8	11.1	9.9	89.9
High Prairie, Providence	18,590	2,452	21,042	18,579	2,433	21,012	8.3	7.0	8.1	124.2
High River, Municipal	12,055	1,704	13,759	11,526	1,696	13,222	7.1	7.0	7.1	75.1
Innisfail, Municipal	7,882	1,198	9,080	7,677	1,181	8,858	7.5	7.1	7.5	77.1
Islay, Municipal	2,902	255	3,157	2,730	250	2,980	8.8	8.3	8.7	61.2
Jasper, Seton	5,407	1,111	6,518	5,678	1,111	6,789	8.9	9.5	9.0	57.0
Killam, General	7,058	1,192	8,250	7,373	1,218	8,591	6.9	9.9	7.3	71.6
Lac La Biche, St. Catherine's	7,192	1,605	8,797	7,121	1,591	8,712	6.0	6.8	6.1	85.7
Lacombe, Municipal	13,712	2,497	16,209	13,814	2,510	16,324	7.7	8.4	7.8	75.1
Lamont, Archer Memorial	17,355	1,292	18,647	15,872	1,285	17,157	6.7	8.2	6.8	50.1
Lethbridge, Galt	31,790	3,749	35,539	31,256	3,707	34,963	9.6	8.1	9.4	101.3
(a) Isolation	95	8,339	95	116	8,452	116	8.4	8.2	8.4	90.1
Lethbridge, St. Michael's General	59,541	1,717	67,880	58,211	1,714	66,663	9.9	8.6	9.7	N.A.
Lloydminster, Lloydminster	13,968	1,888	15,685	13,593	1,889	15,307	6.7	8.4	6.9	104.9
McLennan, Sacred Heart	11,107	557	12,995	11,150	554	13,039	6.9	7.7	6.9	46.7
Magrath, Municipal	3,747	---	4,304	3,537	---	4,091	6.9	---	7.0	---

TABLE No. 6—Continued

HOSPITAL	PATIENT DAYS DURING 1954			PATIENT DAYS OF PATIENTS DISCHARGED OR DECEASED			AVERAGE STAY OF PATIENTS DISCHARGED OR DECEASED			OCCUPANCY
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	
Manning, Municipal	2,539	677	3,216	2,512	680	3,192	4.1	6.2	4.4	58.0
Manville, Municipal	3,721	726	4,447	3,782	733	4,515	7.0	7.9	7.1	68.0
Mayerthorpe, Municipal	8,806	1,320	10,126	8,487	1,355	9,842	7.0	8.7	7.2	120.6
Medicine Hat, General	37,292	7,231	44,523	37,422	7,410	44,832	8.8	8.9	8.8	86.6
Mundare, General	5,279	353	5,632	5,277	364	5,641	6.5	8.9	6.6	55.6
Myram, Municipal	3,921	523	4,444	3,885	508	4,393	6.3	9.8	6.6	82.6
Nordeg, General	237	75	312	224	78	302	5.0	6.5	5.3	18.8
Olds, Municipal	9,124	1,827	10,951	9,333	1,832	11,165	8.8	7.9	8.6	80.6
Oyen, Municipal	2,850	533	3,383	2,854	498	3,352	7.3	8.0	7.4	45.9
Peace River, Municipal	12,117	2,311	14,428	11,875	2,297	14,172	8.5	10.1	8.7	89.7
Pincher Creek, St. Vincent's	10,210	1,382	11,592	9,447	1,380	10,827	7.1	9.4	7.3	43.7
Ponoka, Municipal	10,118	1,591	11,709	10,363	1,582	11,945	6.6	7.6	6.7	57.8
Provost, Municipal	7,141	763	7,904	6,939	759	7,698	6.7	6.1	6.7	75.3
Radway, St. Joseph's	3,656	802	4,458	3,636	769	4,405	6.4	8.3	6.6	71.6
Raymond, Municipal	4,048	844	4,892	4,048	844	4,892	6.1	6.8	6.2	61.6
Red Deer, Municipal	28,274	5,241	33,515	27,915	5,182	33,097	7.2	8.4	7.3	74.5
Rimby, Municipal	8,067	1,485	9,552	8,178	1,427	9,605	6.9	6.9	6.9	116.3
Rocky Mountain House, Municipal	7,024	1,108	8,132	7,131	1,100	8,231	6.5	7.9	6.6	55.0
Smoky Lake, George McDougall	2,657	830	3,487	2,651	803	3,454	5.1	6.8	5.4	48.5
Spirit River, Holy Cross	10,516	1,267	11,783	10,770	1,254	12,024	8.5	9.3	8.6	106.7
Stettler, Municipal	18,052	2,482	20,534	17,979	2,493	20,472	8.3	7.3	8.1	88.3
St. Paul, St. Theresa	19,435	2,773	22,208	19,275	2,775	22,050	7.9	9.8	8.1	143.9
Taber, Municipal	12,487	2,888	15,375	12,530	2,879	15,409	6.0	7.7	6.3	92.5
Three Hills, Municipal	3,675	958	4,633	3,665	938	4,603	5.7	8.0	6.1	40.3
Tofield, Municipal	6,390	1,074	7,464	6,589	1,051	7,640	7.2	8.0	7.3	83.4
Trochu, St. Mary's	3,883	754	4,637	3,811	671	4,482	8.6	9.6	8.7	34.3
Turner Valley, Municipal	5,547	456	6,003	5,531	475	6,006	10.3	8.3	10.1	116.9
Two Hills, Municipal	6,811	863	7,674	6,608	844	7,452	6.8	9.6	7.0	74.6
Vegreville, St. Joseph's General	19,886	1,992	21,878	19,449	1,974	21,423	8.6	8.6	8.6	64.1
Vermilion, Municipal	9,146	1,453	10,599	8,734	1,455	10,189	6.8	7.8	6.9	67.7
Viking, Municipal	8,406	1,019	9,425	8,321	1,015	9,336	6.9	9.4	7.1	65.8

Vilna, Municipal	3,436	1,001	4,437	3,431	1,009	4,440	7.1	10.5	7.6	67.2
Vulcan, Municipal	7,815	1,339	9,154	7,609	1,307	8,916	6.2	8.3	6.5	57.9
Wainwright, Municipal	12,400	1,998	14,389	12,355	2,005	14,360	8.3	8.5	8.3	70.8
Westlock, Immaculata	22,610	2,764	25,374	22,880	2,792	25,672	7.6	9.2	7.9	82.6
Wetaskiwin, Community	15,778	2,839	18,617	15,837	2,774	18,611	6.9	7.8	7.0	72.1
Willingdon, General	5,430	586	6,016	5,441	592	6,033	6.7	8.6	6.8	114.4
GRAND TOTAL	1,825,710	258,739	2,084,449	1,811,266	259,313	2,070,579	8.9	8.0	8.8	76.4
Less D.V.A., Psychiatric, Orthopaedic and Polio Division cases	119,444	-----	119,444	125,397	-----	125,397	45.5	---	45.5	---
NET TOTAL	1,706,266	258,739	1,965,005	1,685,838	259,313	1,945,151	8.4	8.0	8.4	76.4



TABLE No. 7—STAFF AS AT DECEMBER 31, 1954—FULL TIME AND PART TIME

HOSPITAL	Total	Salaried Doctors	NURSES		NURSES AIDES		Orderlies	Internes	Technicians	Dietitians	All Others	Organized Medical Staff	Nurses Training School	Graduated During Year
			Graduate	Student	Certified	Trainee								
Athabasca Municipal	27	—	7	—	1	—	1	—	1	—	18	X	—	—
Banff Mineral Springs	48	—	13	—	1	—	—	—	3	—	29	—	—	—
Barrhead St. Joseph's	28	—	8	—	—	—	—	—	2	—	17	—	—	—
Bassano Municipal	14	—	4	—	2	—	—	—	—	—	8	—	—	—
Beaverlodge Municipal	13	—	3	—	1	—	—	—	—	—	9	—	—	—
Bentley Municipal	13	—	4	—	2	—	—	—	—	—	7	—	—	—
Berwyn Municipal	11	—	2	—	—	—	—	—	—	—	8	—	—	—
Blairmore, Crow's Nest Pass Municipal	42	—	9	—	6	—	1	—	1	—	24	—	—	—
Bonnyville, Katherine H. Prittie	10	—	2	—	2	—	—	—	—	—	6	—	—	—
Bonnyville, St. Louis	33	—	7	—	1	—	—	—	2	—	23	—	—	—
Brooks Municipal	50	—	18	—	6	—	—	—	2	—	23	—	—	—
Calgary Alberta Red Cross	129	—	38	—	21	—	—	—	2	—	67	X	—	—
Calgary General	1,133	4	267	210	127	—	32	16	28	8	441	X	X	51
Calgary Holy Cross	637	3	127	170	22	—	16	5	20	3	271	X	X	60
Calgary Salvation Army Grace	20	—	8	—	2	—	—	—	—	—	10	—	—	—
Camrose St. Mary's	103	—	23	—	10	6	2	—	4	1	57	X	—	—
Cardston Municipal	28	—	6	—	6	—	—	—	2	—	14	—	—	—
Carmangay, Little Bow Municipal	6	—	3	—	2	—	—	—	—	—	1	—	—	—
Castor, Our Lady of the Rosary	30	—	6	—	—	—	—	—	3	—	21	—	—	—
Cereal Municipal	6	—	1	—	—	—	—	—	—	—	5	—	—	—
Clareholm Municipal	29	—	11	—	4	—	—	—	1	—	13	—	—	—
Coaldale Community	13	—	3	—	4	—	—	—	—	—	6	—	—	—
Cold Lake, John Neil	15	—	2	—	2	—	—	—	—	—	11	—	—	—
Consort Municipal	15	—	3	—	—	—	—	—	—	—	12	—	—	—
Coronation Municipal	15	—	4	—	—	—	—	—	—	—	11	—	—	—
Daysland Providence	18	—	4	—	—	—	—	—	2	—	11	—	—	—
Desmarais, St. Martin's	4	—	—	—	—	—	—	—	—	1	4	—	—	—
Didsbury Municipal	24	—	6	—	—	—	—	—	1	—	17	—	—	—
Drumheller Municipal	84	—	29	—	15	—	2	—	2	—	36	X	—	—
Eckville Municipal	20	—	5	—	—	—	—	—	—	—	15	—	—	—
Edmonton Beaulah Home	14	—	3	—	—	—	10	16	—	3	11	—	—	—
Edmonton General	677	2	122	163	5	—	—	—	33	—	323	X	X	43

Edmonton Misericordia	498	4	92	112	14	---	---	14	7	25	3	227	X	41
Edmonton Royal Alexandra	975	13	185	176	98	---	---	30	26	30	6	411	X	73
Edmonton University	1,182	19	188	283	39	9	---	47	41	26	7	523	X	74
Edson St. John's	24	---	5	---	1	---	---	---	---	---	---	17	---	---
Elk Point Municipal	40	---	8	---	9	---	---	---	---	---	---	21	---	---
Elora Municipal	11	---	4	---	1	---	---	---	---	---	---	6	---	---
Empress Municipal	14	---	2	---	3	---	---	---	---	---	---	8	---	---
Fairview Municipal	27	---	8	---	---	---	---	1	---	1	---	17	---	---
Fort Macleod Municipal	25	---	10	---	1	---	---	1	---	---	---	13	---	---
Fort McMurray St. Gabriel's	15	---	---	---	---	---	---	---	---	---	---	15	---	---
Fort Vermilion St. Theresa	23	---	3	---	---	---	---	---	---	---	---	20	---	---
Galahad St. Joseph's	18	---	2	---	---	---	---	---	---	2	1	13	---	---
Glendon Municipal	13	---	4	---	---	---	---	---	---	---	---	9	---	---
Grande Prairie Municipal	53	---	19	---	8	---	---	1	---	2	1	22	---	---
(a) Hythe Sub Hospital	8	---	1	---	3	---	---	---	---	---	---	4	---	---
Hanna Municipal	34	---	11	---	6	---	---	---	---	1	---	16	---	---
Hardisty St. Anne's	17	---	6	---	---	---	---	---	---	2	---	9	---	---
High Prairie Providence	23	---	7	---	---	---	---	---	---	1	---	15	---	---
High River Municipal	38	---	18	---	2	---	---	---	---	1	1	16	---	---
Innisfail Municipal	26	---	6	---	---	---	---	---	---	1	---	19	---	---
Islay Municipal	13	---	4	---	2	---	---	---	---	---	1	7	---	---
Jasper Seton	18	---	6	---	---	---	---	---	---	2	1	11	---	---
Killam General	20	---	4	---	---	---	---	---	---	---	---	13	---	---
Lacombe Municipal	51	---	17	---	---	---	---	---	---	2	---	32	---	---
Lac La Biche St. Catharines	23	---	5	---	1	---	---	1	---	2	---	14	---	---
Lamont Archer Memorial	110	---	13	46	---	---	---	3	---	2	---	48	X	13
Lethbridge Galt	171	2	36	56	5	2	---	6	2	5	---	61	X	12
Lethbridge St. Michael's General	301	2	46	77	15	---	---	---	---	14	3	136	X	---
McLennan Sacred Heart	43	---	7	---	3	---	---	1	---	---	1	31	---	---
Magrath Municipal	18	---	5	---	---	---	---	---	---	1	---	12	---	---
Mannville Municipal	13	---	4	---	---	---	---	---	---	---	---	9	---	---
Mayerthorpe Municipal	24	---	4	---	5	---	---	---	---	---	1	14	---	---
Medicine Hat General	197	1	40	54	7	---	---	2	2	2	1	88	X	11
Mundare General	15	---	4	---	---	---	---	---	---	1	---	10	---	---
Myrnam Municipal	12	---	3	---	2	---	---	---	---	---	---	7	---	---
Olds Municipal	27	---	8	---	3	---	---	---	---	1	---	15	---	---
Oyen Municipal	11	---	3	---	2	---	---	---	---	---	---	6	---	---
Peace River Municipal	37	---	11	---	4	---	---	---	---	1	---	21	---	---
Pincher Creek St. Vincent's	27	---	4	---	2	---	---	---	---	2	1	18	---	---
Ponoka Municipal	41	---	13	---	6	---	---	---	---	2	---	20	---	---
Provost Municipal	24	---	6	---	2	---	---	---	---	1	---	15	---	---
Rayway St. Joseph's	14	---	3	---	1	---	---	---	---	2	---	8	---	---

## DEPARTMENT OF PUBLIC HEALTH

HOSPITAL	Total	NURSES			NURSES AIDES			Orderlies	Internes	Technicians	Dietitians	All Others	Organized Medical Staff	Nurses Training School	Graduated During Year
		Salaried Doctors	Graduate	Student	Certified	Trainee									
Raymond Municipal	18	--	4	--	--	--	--	--	--	1	--	13	--	--	--
Red Deer Municipal	105	1	36	--	5	--	1	--	--	3	1	58	X	--	--
Rimbey Municipal	20	--	5	--	4	--	--	--	--	--	--	11	--	--	--
Rocky Mountain House Municipal	22	--	7	--	--	--	--	--	--	--	--	15	--	--	--
Smoky Lake, George McDougall	13	--	1	--	--	--	--	--	--	--	--	12	--	--	--
Spirit River Holy Cross	26	--	4	--	4	--	1	--	--	--	1	16	--	--	--
Stettler Municipal	74	--	20	--	9	--	1	--	--	2	1	41	--	--	--
St. Paul, St. Theresa	54	--	4	--	14	--	1	--	--	2	--	46	--	--	--
Taber Municipal	57	--	15	--	4	--	--	--	--	--	--	24	--	--	--
Three Hills Municipal	19	--	5	--	--	--	--	--	--	--	--	10	--	--	--
Tofield Municipal	17	--	5	--	--	--	--	--	--	--	--	12	--	--	--
Trochu St. Mary's	13	--	2	--	--	--	--	--	--	--	--	11	--	--	--
Turner Valley Municipal	14	--	5	--	4	--	--	--	--	1	--	9	--	--	--
Two Hills Municipal	21	--	19	39	4	--	1	--	--	4	2	82	X	X	15
Vegreville St. Joseph's	147	--	13	--	5	--	--	--	--	1	--	13	--	--	--
Vermilion Municipal	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Viking Municipal	28	--	6	--	8	--	--	--	--	1	--	13	--	--	--
Vilna Municipal	11	--	3	--	--	--	--	--	--	--	--	8	--	--	--
Vulcan Municipal	23	--	7	--	--	--	--	--	--	1	--	15	--	--	--
Wainwright Municipal	40	--	10	--	5	--	--	--	--	2	--	23	--	--	--
Westlock Immaculata	65	--	16	--	1	4	--	--	--	4	1	39	--	--	--
Wetaskiwin Community	45	--	17	--	8	--	--	--	--	1	--	19	--	--	--
Willingdon General	13	--	2	--	1	--	--	--	--	--	--	9	--	--	--
TOTAL	8,460	51	1,784	1,386	561	21	176	115	269	61	4,036	N.A.	N.A.	N.A.	393

Not reporting: Canmore Hospital, Manning Municipal Hospital.



TABLE No. 8 — OPERATING EXPENDITURES, 1954

HOSPITAL	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
Athabasca, Municipal	\$ 34,502.72	\$ 20,917.58	\$ 5,060.73	\$ 717.31	\$ 11,588.18	\$ 830.74	\$ 7,289.53	\$ 1,056.93	\$ 81,963.72
Banff, Mineral Springs	79,271.95	46,190.77	9,471.03	972.84	12,633.50	1,827.32	330.21	669.66	151,367.28
Barrhead, St. Joseph's	65,847.86	21,130.37	3,291.68	436.67	1,831.63	2,015.53	23.15	1,257.42	95,834.31
Bassano, Municipal	23,493.07	18,346.02	5,937.61	304.29	2,569.33	4,927.27	427.23	835.12	56,839.94
Beaverlodge, Municipal	16,940.96	14,376.35	2,393.68	303.26	—	405.47	221.47	367.93	35,009.12
Bentley, Municipal	16,401.25	11,522.99	2,139.79	318.33	6,704.36	1,190.69	1,943.13	357.16	40,577.70
Berwyn, Municipal	15,020.83	8,399.67	2,129.50	622.42	6,000.00	925.45	1,401.28	980.00	35,479.15
Blairmore, Crow's Nest Pass Municipal	83,880.26	42,171.67	3,128.25	755.71	19,618.72	2,471.47	8,990.85	2,820.58	163,837.51
Bonnyville, Katherine H. Prittie	14,648.63	6,814.21	1,645.85	146.25	—	1,629.16	6.05	754.27	25,644.42
Bonnyville, St. Louis	54,004.72	18,560.66	1,726.19	124.00	4,156.43	1,808.07	11.59	507.35	80,899.01
Brooks, Municipal	85,088.95	52,535.16	4,661.48	1,039.95	9,750.00	4,671.74	8,749.12	—	166,496.40
Calgary, Alberta Red Cross	303,486.12	51,243.94	13,101.08	2,045.67	—	5,217.41	—	5,364.61	380,458.83
Calgary, General	2,269,584.32	681,678.38	37,059.60	4,980.07	—	113,316.99	229,790.54	67,868.99	3,404,278.89
Calgary, Holy Cross	1,031,322.11	414,331.84	38,822.21	6,206.59	103,436.30	29,018.87	6,397.47	16,191.06	1,645,726.45
Calgary, Grace Salvation Army	25,363.78	12,817.27	478.53	427.65	—	692.15	—	1,730.54	41,509.92
Camrose, St. Mary's	176,503.72	57,603.83	10,294.12	799.32	24,713.60	7,706.36	11,461.31	1,913.00	290,995.26
Cardston, Municipal	43,636.40	30,564.94	3,691.81	523.78	3,126.89	3,702.22	51.91	587.94	85,885.89
Carmanagay, Little Bow Municipal	17,794.46	9,279.26	1,977.83	105.00	—	1,976.48	23.18	226.74	31,382.95
Castor, Our Lady of the Rosary	31,319.00	25,531.17	1,815.24	559.25	4,500.00	2,082.34	20.65	671.22	66,498.87
Cereal, Municipal	14,302.00	16,581.14	1,505.78	67.45	2,158.63	401.07	—	387.00	35,403.07
Claresholm, Municipal	53,183.02	31,011.51	3,822.32	382.48	6,201.52	8,106.51	1,195.50	1,200.00	105,102.86
Coaldale, Community	8,532.78	7,569.02	1,294.87	689.08	4,532.67	7,335.36	653.04	562.92	24,169.74
Cold Lake, John Neil	20,851.90	13,431.78	1,659.26	50.00	836.00	1,399.67	—	767.65	38,996.26
Consort, Municipal	20,784.23	17,685.89	3,397.19	269.91	7,100.00	2,366.30	1,852.55	117.83	53,573.90
Coronation, Municipal	21,521.55	13,368.06	2,352.86	223.54	2,793.25	1,458.91	8.32	654.83	42,381.32
Daysland, Providence	42,703.50	16,893.79	1,860.72	214.96	7,013.73	1,664.56	—	487.52	70,838.78
Desmarais, St. Martin's	5,340.00	4,884.58	659.63	46.15	592.45	—	—	88.86	11,611.67
Didsbury, Municipal	38,302.80	29,021.65	2,434.00	790.54	7,620.70	4,664.35	2,828.98	1,299.38	86,982.40
Drumheller, Municipal	135,466.76	89,070.12	11,559.76	1,645.94	18,672.90	3,036.39	7,028.73	1,635.76	268,116.36
Edkville, Municipal	29,050.53	12,816.36	2,318.73	731.31	8,742.20	1,758.92	2,567.86	545.90	58,531.81
Edmonton, General	1,009,444.49	400,787.05	34,252.03	12,601.32	158,163.88	97,300.73	97,405.51	11,533.33	1,821,488.34
Edmonton, Misericordia	795,850.57	323,777.40	35,976.72	6,136.56	66,476.00	66,234.75	18,966.74	10,984.28	1,324,403.02

TABLE No. 8—Continued

HOSPITAL	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Replacements and Repairs	Interest and Exchange	Miscellaneous	Total Expenditure
Edmonton, Royal Alexandra	1,554,807.93	778,250.66	41,087.50	60,800.42	58,772.09	93,225.78	76,846.19	17,189.45	2,680,980.02
Edmonton, University	1,915,330.73	949,927.31	57,509.06	13,166.54	64,258.98	47,291.44	132,032.51	37,457.96	3,216,974.53
Edson, St. John's	50,072.50	12,687.61	2,054.35	442.30	5,337.10	5,745.02	61.25	353.60	76,753.73
Elk Point, Municipal	56,530.32	32,699.95	7,510.26	1,119.95	15,108.09	4,679.32	6,645.29	677.74	124,970.92
Elmira, Municipal	16,680.95	8,950.82	1,086.33	375.61	3,996.36	2,327.80	1,918.98	529.00	35,865.85
Empress, Municipal	22,788.80	17,450.64	2,447.12	90.88	—	2,350.05	41.67	131.00	45,300.16
Fairview, Municipal	33,810.76	27,260.70	5,312.35	664.90	8,737.90	2,002.93	2,301.19	1,011.20	81,101.93
Fort Macleod, Municipal	41,002.29	28,083.57	1,391.65	418.29	2,957.58	6,139.64	358.38	558.40	80,909.80
Fort McMurray, St. Gabriel's	31,041.16	10,324.76	2,494.84	50.00	3,685.00	833.09	2,969.53	359.12	51,757.50
Fort Vermilion, St. Theresa	39,376.72	25,864.34	265.70	—	7,393.50	4,192.09	4,025.14	230.75	78,492.09
Galahad, St. Joseph's	35,590.05	12,519.07	2,000.50	657.88	3,111.21	4,195.09	4,552.38	144.00	62,770.18
Glendon, Municipal	18,923.63	13,920.70	4,048.47	245.01	2,586.55	1,351.07	3,390.70	45.00	44,511.13
Grande Prairie, Municipal	100,838.79	75,240.80	10,141.61	1,393.56	18,447.67	2,082.09	3,217.27	10,484.12	221,845.91
Hanna, Municipal	59,218.26	41,338.15	4,570.70	2,168.18	3,857.23	9,437.78	3,119.44	792.00	124,501.74
Hardisty, St. Anne's	29,578.63	15,870.95	1,740.80	326.50	5,679.75	1,799.14	1,419.03	706.01	57,120.81
High Prairie, Providence	71,098.40	42,131.52	4,566.59	491.77	5,974.07	2,332.39	151.47	819.45	127,565.66
High River, Municipal	62,603.46	40,905.88	5,030.78	816.50	10,028.15	6,484.95	2,826.66	1,807.94	130,504.32
Innisfail, Municipal	40,912.51	32,025.82	3,476.51	660.44	—	9,598.57	33.84	223.30	86,930.99
Islay, Municipal	16,491.92	7,010.87	1,871.03	207.13	1,139.25	2,108.39	6.55	680.62	29,515.76
Jasper, Seton	35,203.58	13,656.64	1,374.76	462.50	6,096.00	1,206.66	349.17	433.25	58,782.56
Killam, General	47,730.62	18,123.68	2,730.63	840.00	6,111.78	3,726.45	55.14	594.54	76,912.84
Lac La Biche, St. Catherine's	41,447.89	14,149.31	1,340.72	217.63	1,013.71	59.50	—	447.15	58,675.91
Lacombe, Municipal	76,270.89	50,007.36	6,106.97	1,142.19	11,346.99	2,700.75	3,956.67	1,268.30	152,800.12
Lamont, Archer Memorial	111,380.94	71,797.60	8,485.70	60.00	10,079.46	6,107.03	2,310.98	4,080.73	214,302.44
Lethbridge, Galt	230,502.43	146,555.74	13,180.60	1,385.60	21.49	5,483.30	2,730.21	1,009.60	400,868.97
Lethbridge, St. Michael's	419,637.17	211,414.64	18,442.96	2,905.20	50,715.32	19,895.11	43,808.18	4,087.55	771,006.13
McLennan, Sacred Heart	43,343.81	33,227.84	4,839.82	649.10	5,891.10	2,673.39	992.55	470.07	92,077.68
Magrath, Municipal	27,808.35	15,225.52	2,981.06	347.75	5,322.77	824.39	3,400.13	440.32	56,350.29
Mannville, Municipal	19,658.25	15,854.95	2,970.36	441.36	4,146.88	1,374.76	4.30	112.80	44,563.66
Mayerthorpe, Municipal	40,242.01	43,266.16	5,610.82	981.05	7,979.81	969.11	3,939.37	446.00	103,334.33
Medicine Hat, General	260,223.43	116,730.18	37,136.04	3,096.88	28,039.00	3,497.75	753.10	4,385.81	453,862.19
Mundare, General	31,864.88	10,371.85	896.82	415.87	3,283.45	4,438.20	11.26	996.32	52,258.65
Myrnam, Municipal	29,248.13	16,775.50	2,454.97	179.00	3,021.20	746.76	1,218.75	843.38	54,487.69

Olds, Municipal	47,229.75	38,639.11	4,853.60	1,083.59	3,208.00	2,273.30	3,667.63	620.62	101,575.60
Oyen, Municipal	16,323.14	10,265.36	2,903.44	303.53	1,744.11	1,808.36	589.85	423.40	34,361.19
Peace River, Municipal	63,681.80	41,354.37	5,768.07	1,493.80	5,000.00	3,558.00	2,242.76	1,492.40	124,591.20
Pincher Creek, St. Vincent's	41,262.41	20,259.44	2,414.32	2,356.05	11,104.42	5,895.10	3,517.78	589.90	85,131.07
Ponoka, Municipal	67,978.01	33,791.42	4,321.73		18,116.34	2,557.35	8,148.48	581.34	137,850.72
Provost, Municipal	40,932.46	29,582.54	4,777.79	826.98	9,144.04	1,942.08	4,961.98	212.60	92,380.47
Radway, St. Joseph's	22,333.10	11,933.91	1,611.59	256.65	2,232.68	1,294.83	35.74	142.25	39,840.75
Raymond, Municipal	24,911.81	20,012.08	1,874.28	199.21	1,938.90	914.13	1,317.88	239.01	51,407.30
Red Deer, Municipal	190,903.52	101,119.40	16,370.18	1,780.23	31,685.46	6,522.98	16,346.47	4,652.99	369,381.23
Rimbey, Municipal	35,695.45	33,041.78	3,580.63	998.82	9,045.74	6,551.17	4,630.93	576.10	94,120.62
Rocky Mountain House, Municipal	28,377.53	17,960.60	3,227.63	524.17	4,681.00	1,756.06	4,709.69	641.55	61,878.23
Smoky Lake, George McDougall	21,455.93	9,356.51	1,500.49	80.47	1,708.77	3,088.64	169.41	585.64	37,945.86
Spirit River, Holy Cross	35,985.19	28,900.89	2,839.86	348.86	2,580.13	4,316.16	23.85	4,334.49	79,329.43
St. Paul, St. Theresa	89,168.80	38,032.64	4,131.11	2,435.33	11,653.36	8,186.73	1,343.76	613.74	155,565.47
Stettler, Municipal	112,764.09	67,873.01	5,072.65	1,112.86	9,404.23	7,798.03	5,823.71	1,455.40	211,303.98
Taber, Municipal	75,169.50	51,266.08	5,936.56	765.04	23,756.66	5,599.66	11,419.85	1,334.55	175,247.90
Three Hills, Municipal	33,906.50	17,283.43	2,582.64	499.44	10,052.13	4,257.39	3,028.88	742.60	72,353.01
Tofield, Municipal	26,747.10	25,636.35	3,131.96	754.40	7,945.68	2,853.22	3,678.12	63.00	70,809.83
Trochu, St. Mary's	18,091.99	11,735.15	1,226.95	257.40	11,448.39	549.91	1,914.41	571.66	45,795.86
Turner Valley, Municipal	26,701.73	18,313.41	3,288.71	90.50	690.48	11,078.28	519.09	—	60,682.20
Two Hills, Municipal	36,563.15	21,976.70	2,236.97	403.87	5,720.82	3,526.48	3,477.53	439.76	74,345.28
Vegreville, St. Joseph's General	103,120.24	75,898.37	17,623.89	2,155.10	17,988.65	7,314.38	1,962.34	746.71	226,809.68
Vermilion, Municipal	40,419.89	24,930.69	3,111.99	742.48	5,335.55	2,665.76	9.19	1,713.00	78,928.55
Viking, Municipal	40,212.57	36,112.32	3,627.92	924.30	4,084.60	2,569.33	5,432.57	1,529.11	94,492.72
Vilna, Our Lady's	28,820.45	9,369.20	1,018.22	50.00	2,843.68	1,338.69	18.94	408.45	43,867.63
Vulcan, Municipal	40,003.85	22,475.15	3,760.55	885.08	10,130.24	5,778.59	2,015.19	1,099.62	86,148.27
Wainwright, Municipal	58,193.31	36,916.82	4,784.48	1,367.45	16,805.32	3,380.27	6,551.58	300.00	128,299.23
Westlock, Immaculata	106,968.27	49,074.32	5,290.40	895.10	23,629.68	6,145.74	11,122.73	703.15	203,829.39
Wetaskiwin, Community	81,595.26	40,510.79	6,628.29	1,189.17	15,620.39	9,753.76	20.88	490.88	155,809.42
Willingdon, General	31,768.51	11,729.73	885.26	356.20	3,877.06	1,307.79	20.65	872.94	50,818.14
TOTAL	13,778,990.74	6,425,877.09	649,480.62	168,181.37	1,148,828.82	760,349.06	827,815.05	256,419.12	24,015,941.87



TABLE No. 9—REVENUE FOR OPERATING PURPOSES, 1954

HOSPITAL	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grant	Out-Patient Earnings	Total Operating Revenue	Other Revenue	Total Revenue
Athabasca, Municipal	68,825.40	15,107.64	83,933.04	41,412.10	42,520.94	47,523.84	—	90,044.78	671.08	90,715.86
Banff, Mineral Springs	105,276.97	33,416.55	138,693.52	4,108.06	134,585.46	7,427.00	5,429.91	147,442.37	—	147,442.37
Barhead, St. Joseph's	67,465.50	26,301.59	93,767.09	7,045.12	86,721.97	8,274.70	—	94,996.67	900.08	95,896.75
Bassano, Municipal	34,156.20	8,656.10	42,812.30	20,426.50	22,385.80	28,714.60	1,013.55	52,113.95	2,016.77	54,130.72
Beaverfodge, Municipal	18,634.75	3,661.59	22,296.34	8,657.38	13,638.96	21,290.48	1,983.70	36,913.14	581.56	37,494.70
Bentley, Municipal	13,925.80	4,649.94	18,575.74	2,691.47	15,884.27	23,866.90	844.60	40,595.77	68.60	40,664.37
Berwyn, Municipal	25,353.60	5,151.70	30,505.30	21,569.75	8,935.55	33,783.10	527.00	43,245.65	365.00	43,610.65
Blairmore, Crow's Nest Pass Mun.	80,931.25	29,407.45	110,338.70	48,365.54	61,973.16	102,025.15	—	163,998.31	—	163,998.31
Bonnyville, Katherine H. Prittie	16,083.65	3,430.35	19,514.00	1,454.04	18,059.96	5,366.10	—	23,426.06	191.04	23,617.10
Bonnyville, St. Louis	74,395.10	17,284.05	91,679.15	11,651.01	80,028.14	8,000.30	752.73	88,781.17	225.52	89,006.69
Brooks, Municipal	82,113.80	36,470.70	118,584.50	55,303.56	63,280.94	103,239.45	2,512.15	169,032.54	2,666.81	171,699.35
Calgary, Alberta Red Cross	Details Not Available									
Calgary, General	1,579,038.52	692,876.13	2,271,914.65	224,286.44	2,047,628.21	1,311,398.75	45,251.93	3,404,278.89	—	3,404,278.89
Calgary, Holy Cross	991,800.80	498,582.61	1,490,383.41	161,372.71	1,329,010.70	136,081.30	37,213.61	1,502,305.61	59,245.17	1,561,550.78
Calgary, Salvation Army Grace	15,861.15	4,143.79	20,004.94	779.27	19,225.67	24,531.12	—	43,756.79	—	43,756.79
Camrose, St. Mary's	175,294.20	76,299.75	251,593.95	14,855.70	236,738.25	18,727.10	—	255,465.35	908.27	256,373.62
Cardston, Municipal	44,443.65	10,842.60	55,286.25	23,375.21	31,911.04	67,114.15	3,351.40	102,376.59	69.65	102,446.24
Carmanagay, Little Bow Municipal	14,667.92	1,902.33	16,570.25	5,566.80	11,003.45	25,575.85	—	36,579.30	205.87	36,785.17
Castor, Our Lady of the Rosary	39,965.70	12,512.73	52,478.43	5,470.15	47,008.28	5,228.30	—	52,236.58	5,210.90	57,447.48
Cereal, Municipal	14,125.60	4,088.62	18,214.22	4,979.00	13,235.22	19,187.50	4,366.67	36,789.39	1,146.76	37,936.15
Claresholm, Municipal	65,305.95	15,663.90	80,969.85	28,691.80	52,278.05	50,129.25	3,692.16	106,099.46	715.00	106,814.46
Coaldale, Community *	14,902.15	6,413.27	21,315.42	—	21,315.42	3,245.20	—	24,560.62	—	24,560.62
Cold Lake, John Neil	23,294.40	7,077.09	30,371.49	2,652.20	27,719.29	7,538.20	—	35,257.49	52.46	35,309.95
Consort, Municipal	30,580.70	4,989.28	35,569.98	17,789.03	17,789.95	37,866.80	1,678.00	57,333.83	1,320.57	58,654.40
Coronation, Municipal	29,352.50	6,334.75	35,687.25	18,896.85	16,790.40	30,344.80	—	47,135.20	—	47,135.20
Daysland, Providence	36,669.05	15,787.80	52,456.85	2,094.66	50,362.19	4,537.40	—	54,899.59	283.06	55,182.65
Desmarais, St. Martin's	11,984.90	584.10	12,569.00	5,985.25	6,583.75	—	—	6,583.75	5,027.92	11,611.67
Didsbury, Municipal	44,546.55	13,006.40	57,552.95	21,785.06	35,767.89	61,538.05	4,313.69	101,619.63	39.14	101,658.77
Drumheller, Municipal	148,662.70	55,861.60	204,524.30	93,791.44	110,732.86	186,483.65	—	297,216.51	72,771.94	369,988.45
Eckville, Municipal	29,283.50	799.70	30,083.20	15,591.85	14,491.35	38,557.95	206.40	53,555.70	297.26	53,852.96

\* June 1st to December 31, 1954.

Edmonton, General	1,047,220.29	521,918.65	1,569,138.94	180,718.75	1,388,420.19	111,818.20	48,898.26	1,549,136.65	39,841.20	1,588,977.85
Edmonton, Misericordia	872,338.20	421,916.00	1,294,254.20	115,443.40	1,178,810.80	89,826.15	17,398.12	1,286,035.07	89,852.13	1,375,687.20
Edmonton, Royal Alexandra	1,615,371.50	767,602.47	2,382,973.97	172,610.54	2,210,363.43	348,783.44	61,397.18	2,620,544.05	60,435.97	2,680,980.02
Edmonton, University	2,252,024.56	984,632.17	3,236,656.73	265,615.41	2,971,041.32	341,418.19	153,380.93	3,465,840.44	—	3,465,840.44
Edson, St. John's	52,026.15	19,238.58	71,264.73	1,290.54	69,974.19	6,527.20	—	76,901.39	200.00	77,101.39
Elk Point, Municipal	97,025.40	16,023.31	113,048.71	45,230.18	67,818.53	65,856.85	—	133,675.38	393.90	134,069.28
Elmira, Municipal	15,014.20	2,026.71	17,040.91	4,597.47	12,443.44	24,846.20	338.60	37,628.24	277.50	37,905.74
Empress, Municipal	24,978.45	3,283.88	21,694.57	10,500.30	20,832.00	26,056.80	—	46,888.63	696.65	47,585.28
Fairview, Municipal	52,432.50	12,545.65	64,978.15	35,118.90	29,859.25	59,708.85	1,316.25	90,884.35	—	90,884.35
Fort Macleod, Municipal	53,678.23	8,721.58	62,399.81	18,881.71	43,518.10	36,613.20	—	80,131.30	126.67	80,257.97
Fort McMurray, St. Gabriel's	22,170.91	1,769.11	23,940.02	3,288.07	20,651.95	5,156.55	—	25,808.50	1,860.01	27,668.51
Fort Vermilion, St. Theresa	76,509.26	2,737.40	79,246.66	cr.	79,625.26	6,168.60	—	85,793.86	683.18	86,477.04
Galahad, St. Joseph's	31,537.24	9,598.67	41,135.91	8,977.25	40,238.66	4,107.60	—	44,346.26	—	44,346.26
Glendon, Municipal	23,423.65	2,071.83	25,495.48	10,154.85	15,340.63	31,682.60	629.95	47,653.18	19.48	47,672.66
Grande Prairie, Municipal	158,951.50	44,006.97	202,958.47	104,633.77	98,324.70	133,187.10	8,872.40	240,384.20	185.64	240,569.84
Hanna, Municipal	68,899.70	19,051.47	87,951.17	32,587.05	55,374.12	77,572.95	—	132,947.07	7,475.05	140,422.12
Hardisty, St. Anne's	41,576.00	12,941.17	54,517.17	24,122	54,275.95	5,063.80	—	59,339.75	1,354.82	60,694.57
High Prairie, Municipal	114,879.70	35,354.40	150,234.10	51,723.20	98,510.90	11,767.70	7,205.53	117,484.13	791.50	118,275.63
High River, Municipal	76,338.80	15,385.85	91,724.65	57,999.45	33,725.20	98,355.50	—	132,080.70	797.07	132,877.77
Innisfail, Municipal	82,322.16	6,854.03	89,176.19	69,120.90	20,055.29	72,059.10	—	92,114.39	—	92,114.39
Islay, Municipal	17,929.80	3,318.35	21,248.15	14,006.88	7,241.27	25,908.65	65.50	33,215.42	155.00	33,370.42
Jasper, Seton	43,210.77	18,867.44	62,078.21	8,895.91	53,182.30	3,612.50	—	56,794.80	1,000.00	57,794.80
Killam, General	45,261.10	20,241.05	65,502.15	2,249.10	63,253.05	5,742.10	—	68,995.15	1,560.60	70,555.75
Lac La Biche, St. Catherine's	40,439.30	12,294.46	52,733.76	5,839.16	46,894.60	6,231.90	—	53,126.50	75.00	53,201.50
Lacombe, Municipal	91,170.95	19,207.90	110,378.85	43,075.04	67,303.81	90,373.95	1,291.65	158,969.41	90.78	159,060.19
Lamont, Archer Memorial	131,611.90	37,338.01	168,949.91	8,949.57	160,000.34	16,159.00	1,445.78	177,605.12	15,855.16	193,460.28
Lethbridge, Galt	251,927.95	95,262.88	347,190.83	22,783.08	324,407.75	27,794.00	1,993.62	354,195.37	1,611.51	355,806.88
Lethbridge, St. Michael's	488,453.10	241,750.44	730,603.32	64,006.52	666,197.02	46,111.80	18,294.50	730,603.32	170,322.35	900,925.67
McLennan, Sacred Heart	69,926.20	15,533.35	85,459.55	289.10	85,170.45	9,638.30	1,641.00	96,449.75	1,146.27	97,596.02
Magrath, Municipal	25,677.70	7,068.26	32,745.96	11,215.30	21,530.66	43,382.50	—	64,913.16	909.86	65,823.02
Manville, Municipal	24,328.20	1,707.70	26,035.90	10,008.60	16,027.30	34,329.77	921.55	51,278.62	222.20	51,500.82
Mayerthorpe, Municipal	62,852.60	20,494.97	83,347.57	24,527.84	58,819.73	60,215.40	2,535.85	121,570.98	—	121,570.98
Medicine Hat, General	298,027.10	86,437.54	384,464.64	17,031.40	367,433.24	87,072.70	—	454,505.94	10,054.13	464,560.07
Mundare, General	32,420.80	8,866.46	41,287.26	4,290.20	36,997.06	3,955.00	—	40,952.06	838.96	41,791.02
Myrnam, Municipal	25,071.25	7,673.54	32,744.79	12,728.62	20,016.17	37,348.80	1,774.33	59,139.30	5.00	59,144.30
Olds, Municipal	57,318.60	15,668.15	72,986.75	25,581.50	47,405.25	67,747.05	2,398.80	117,551.10	151.92	117,703.02
Oyen, Municipal	17,495.60	3,611.23	21,106.83	8,834.30	12,272.53	22,061.09	—	34,333.62	608.79	34,942.41
Peace River, Municipal	75,731.00	19,277.60	95,008.60	42,373.88	52,634.72	74,175.85	6,899.60	133,710.17	1,250.00	134,960.17
Pincher Creek, St. Vincent's	56,040.22	13,864.02	69,904.24	17,027.31	55,876.93	7,152.70	—	63,029.63	—	63,029.63
Ponoka, Municipal	65,509.25	25,208.70	90,717.95	46,692.65	44,025.30	102,489.25	2,455.45	148,970.00	—	148,970.00
Provost, Municipal	46,355.77	13,032.95	59,388.72	22,113.11	37,275.61	58,883.10	3,045.70	99,204.41	150.15	99,354.56

TABLE No. 9—Continued

HOSPITAL	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grant	Out-Patient Earnings	Total Operating Revenue	Other Revenue	Total Revenue
Rayway, St. Joseph's	22,899.80	9,370.88	32,270.68	1,354.10	30,916.58	7,094.90	—	38,011.48	440.00	38,451.48
Raymond, Municipal	25,758.60	10,376.22	36,134.82	22,357.70	13,777.12	39,515.50	1,041.10	54,333.72	281.43	54,615.15
Red Deer, Municipal	197,931.50	63,154.53	261,086.03	90,486.97	170,599.06	210,807.00	2,122.36	383,528.42	6,503.53	390,031.95
Rimbey, Municipal	54,713.90	17,982.65	72,696.55	28,545.26	44,151.29	56,372.65	3,386.85	103,910.79	—	103,910.79
Rocky Mountain House, Municipal	43,256.90	13,396.85	56,653.75	17,952.20	38,701.55	41,578.65	911.48	81,191.68	688.92	81,880.60
Smoky Lake, George McDougall	17,193.70	4,102.15	21,295.85	—	21,295.85	8,202.83	703.22	30,201.90	3,076.01	33,277.91
Spirit River, Holy Cross	66,922.45	22,723.19	89,645.64	8,819.36	80,826.28	8,031.80	—	88,858.08	100.00	88,958.08
St. Paul, Theresa	134,623.90	42,283.38	176,907.28	20,653.50	156,253.78	12,761.70	—	169,015.48	—	169,015.48
Stettler, Municipal	119,131.96	29,417.32	148,549.28	67,127.40	81,421.88	135,100.88	—	216,522.76	3,797.02	220,319.78
Taber, Municipal	91,823.25	32,639.48	124,462.73	38,735.55	85,727.18	88,763.06	—	174,490.24	2,435.83	176,926.07
Three Hills, Municipal	23,607.30	9,831.59	33,438.89	9,984.50	23,454.39	49,473.35	2,378.25	75,305.99	—	75,305.99
Tofield, Municipal	45,424.43	14,330.66	59,755.09	37,747.42	22,007.67	67,210.00	—	89,217.67	37.14	89,254.81
Tronchu, St. Mary's	25,339.50	6,103.17	31,502.67	539.31	30,963.36	3,245.90	2,119.46	36,528.72	1,205.87	37,734.59
Turner Valley, Municipal	35,385.15	8,398.52	43,783.67	14,627.53	29,156.14	41,201.25	1,219.33	71,576.72	344.00	71,920.72
Two Hills, Municipal	44,512.75	8,106.20	52,618.95	20,999.45	31,619.50	54,146.10	3,179.45	88,945.05	892.67	89,837.72
Vegreville, St. Joseph's General	143,972.05	59,722.00	203,694.05	5,774.85	197,919.20	14,874.30	—	212,793.50	7,500.00	220,293.50
Vermilion, Municipal	54,186.80	11,277.05	65,463.85	27,782.82	37,681.03	57,851.45	1,240.15	96,772.63	583.37	97,356.00
Viking, Municipal	51,459.40	22,843.67	74,303.07	44,879.11	29,423.96	82,799.20	1,938.10	114,161.26	1,404.94	115,566.20
Vilna, Our Lady's	21,174.65	6,190.65	27,365.30	cr. 1,804.89	25,560.41	2,217.60	—	31,387.79	181.46	31,569.25
Vulcan, Municipal	49,302.00	13,602.08	62,904.08	31,895.00	31,009.08	58,989.00	3,592.70	86,405.38	—	86,405.38
Wainwright, Municipal	78,842.40	28,487.54	107,329.94	45,512.19	61,817.75	67,531.38	5,584.85	134,933.98	555.00	135,488.98
Westlock, Immaculata	150,439.04	52,803.57	203,242.61	11,805.48	191,437.13	17,532.20	—	208,969.33	—	208,969.33
Wetaskiwin, Community	99,649.90	37,224.45	136,874.35	2,588.60	134,285.75	12,879.30	148.40	147,313.45	760.78	148,074.23
Willingdon, General	33,625.25	12,073.73	45,698.98	4,551.56	41,147.42	3,832.50	—	44,979.92	—	44,979.92
TOTAL	14,273,656.10	5,745,180.54	20,018,836.64	3,013,298.27	17,005,538.37	5,947,271.28	479,718.35	23,432,528.00	596,566.85	24,029,094.85

Not reporting: Canmore Hospital; Edmonton, Beulah Home; Medicine Hat, Isolation; Manning, Municipal.



TABLE No. 10  
DISTRIBUTION OF HOSPITAL OPERATING EXPENDITURES, 1954

HOSPITALS	Operating Cost Per Patient Per Day	PERCENTAGE OF TOTAL OPERATING EXPENDITURE								Revenue Per Patient Per Day
		Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	
Athabasca, Municipal	9.64	42.1	25.5	6.2	0.9	14.1	1.0	8.9	1.3	10.67
Banff, Mineral Springs	10.62	52.4	30.5	6.3	0.6	8.3	1.2	0.2	0.5	10.35
Barrhead, St. Joseph's	8.73	68.7	22.1	3.4	0.5	1.9	2.1	0.0	1.3	8.74
Bassano, Municipal	9.76	41.3	32.3	10.4	0.5	4.5	8.7	0.8	1.5	9.30
Beaverlodge, Municipal	11.56	48.4	41.1	6.8	0.9	---	1.2	0.6	1.0	12.35
Bentley, Municipal	16.58	40.4	28.4	5.3	0.8	16.5	2.9	4.8	0.9	16.61
Berwyn, Municipal	8.18	42.3	23.7	6.0	1.8	16.9	2.6	3.9	2.8	10.06
Blairmore, Crow's Nest Pass Mun.	13.08	51.2	25.7	1.9	0.5	12.0	1.5	5.5	1.7	13.09
Bonnyville, Katherine H. Prittie	9.45	57.1	26.6	6.4	0.6	---	6.4	0.0	2.9	8.70
Bonnyville, St. Louis	6.74	66.8	23.0	2.1	0.2	5.1	2.2	0.0	0.6	7.42
Brooks, Municipal	12.66	51.1	31.5	2.8	0.6	5.9	2.8	5.3	---	13.05
Calgary, Alberta Red Cross	9.51	79.8	13.5	3.4	0.5	---	1.4	---	1.4	7.65
Calgary, General	18.59	66.7	20.0	1.1	0.1	---	3.3	6.8	2.0	18.69
Calgary, Holy Cross	14.47	62.7	25.2	2.3	0.4	6.3	1.7	0.4	1.0	13.73
Calgary, Salvation Army Grace	11.78	61.1	30.9	1.1	1.0	---	1.7	---	4.2	12.41
Camrose, St. Mary's	11.95	60.7	19.8	3.5	0.3	8.5	2.6	3.9	0.7	10.53
Cardston, Municipal	11.58	50.8	35.6	4.3	0.6	3.6	4.3	0.1	0.7	13.81
Carmangay, Little Bow Municipal	16.27	56.7	29.6	6.3	0.3	---	6.3	0.1	0.7	19.07
Castor, Our Lady of the Rosary	9.42	47.1	38.4	2.7	0.9	6.8	3.1	0.0	1.0	8.14
Cereal, Municipal	13.20	40.4	46.8	4.3	0.2	6.1	1.1	---	1.1	14.15
Claresholm, Municipal	10.20	50.6	29.5	3.6	0.4	5.9	7.7	1.1	1.2	10.37
Coaldale, Community	9.21	35.3	31.3	5.4	2.8	18.8	1.4	2.7	2.3	9.36
Cold Lake, John Neil	8.79	53.5	34.4	4.3	0.1	2.1	3.6	---	2.0	7.96
Consort, Municipal	11.20	38.8	33.0	6.3	0.5	13.3	4.4	3.5	0.2	12.26
Coronation, Municipal	8.61	50.8	31.5	5.6	0.5	6.6	3.4	0.0	1.6	9.57
Daysland, Providence	11.54	60.3	23.8	2.6	0.3	9.9	2.4	---	0.7	8.99
Desmarais, St. Martin's	4.15	46.0	42.1	5.7	0.4	5.1	---	---	0.7	4.15
Didsbury, Municipal	11.62	44.0	33.4	2.8	0.9	8.8	5.4	3.2	1.5	13.58
Drumheller, Municipal	12.16	50.5	33.2	4.3	0.6	7.0	1.2	2.6	0.6	16.78
Eckville, Municipal	12.68	49.6	21.9	4.0	1.3	14.9	3.0	4.4	0.9	11.66
Edmonton, General	14.91	55.4	22.0	1.9	0.7	8.7	5.3	5.4	0.6	13.01
Edmonton, Misericordia	12.51	60.1	24.5	2.7	0.5	5.0	5.0	1.4	0.8	12.99
Edmonton, Royal Alexandra	14.90	58.0	29.0	1.5	2.3	2.2	3.5	2.9	0.6	14.90
Edmonton, University	13.48	59.5	29.5	1.8	0.4	2.0	1.5	4.1	1.2	14.53
Edson, St. John's	8.70	65.2	16.5	2.7	0.6	6.9	7.5	0.1	0.5	8.74
Elnora, Municipal	14.18	46.5	25.0	3.0	1.0	11.1	6.5	5.4	1.5	14.98
Elk Point, Municipal	7.78	45.2	26.2	6.0	0.9	12.1	3.8	5.3	0.5	8.35
Empress, Municipal	11.24	50.3	38.5	5.4	0.2	---	5.2	0.1	0.3	11.81
Fairview, Municipal	8.39	41.7	33.6	6.6	0.8	10.8	2.5	2.8	1.2	9.41
Fort Macleod, Municipal	14.25	50.7	34.7	1.7	0.5	3.7	7.6	0.4	0.7	14.14
Fort McMurray, St. Gabriel's	16.84	60.0	19.9	4.9	0.1	7.1	1.6	5.7	0.7	9.00
Fort Vermilion, St. Theresa	6.17	50.2	33.0	0.3	---	9.4	1.7	5.1	0.3	6.80
Galahad, St. Joseph's	11.50	56.7	19.9	3.2	1.0	5.0	6.7	7.3	0.2	8.13
Glendon, Municipal	12.11	42.5	31.3	9.1	0.6	5.8	3.0	7.6	0.1	12.97
Grande Prairie, Municipal	8.61	45.5	33.9	4.6	0.6	8.3	0.9	1.5	4.7	9.34
Hanna, Municipal	11.16	47.6	33.2	3.7	1.7	3.1	7.6	2.5	0.6	12.59
Hardisty, St. Anne's	8.41	51.8	27.8	3.0	0.6	9.9	3.2	2.5	1.2	8.94
High Prairie, Providence	6.57	55.7	33.0	3.6	0.4	4.7	1.8	0.1	0.7	6.10
High River, Municipal	10.34	48.0	31.3	3.8	0.6	7.7	5.0	2.2	1.4	10.53
Innisfail, Municipal	10.50	47.1	36.8	4.0	0.8	---	11.0	0.0	0.3	11.12
Islay, Municipal	9.88	55.9	23.8	6.3	0.7	3.9	7.1	0.0	2.3	11.17
Jasper, Seton	10.18	60.0	23.2	2.3	0.8	10.4	2.0	0.6	0.7	10.00
Killam, General	10.32	58.2	23.6	3.5	1.1	7.9	4.8	0.1	0.8	9.46
Lac La Biche, St. Catherine's	7.59	70.6	24.1	2.3	0.4	1.7	0.1	---	0.8	6.89
Lacombe, Municipal	10.51	49.9	32.7	4.0	0.8	7.4	1.8	2.6	0.8	10.94
Lamont, Archer Memorial	12.05	52.0	33.5	4.0	0.0	4.7	2.8	1.1	1.9	10.88
Lethbridge, Galt	12.10	57.5	36.6	3.3	0.3	0.0	1.4	0.7	0.2	10.74
Lethbridge, St. Michael's	12.37	54.4	27.4	2.4	0.4	6.6	2.6	5.7	0.5	14.46
McLennan, Sacred Heart	7.85	47.1	36.1	5.2	0.7	6.4	2.9	1.1	0.5	8.32
Magrath, Municipal	14.33	49.4	27.0	5.3	0.6	9.4	1.5	6.0	0.8	16.74
Manville, Municipal	11.25	44.1	35.6	6.7	1.0	9.3	3.1	0.0	0.2	13.00
Mayerthorpe, Municipal	11.19	38.9	41.8	5.4	1.0	7.7	1.0	3.8	0.4	13.15
Medicine Hat, General	11.43	57.3	25.7	8.2	0.7	6.2	0.8	0.2	0.9	11.70
Mundare, General	9.68	61.0	19.9	1.7	0.8	6.2	8.5	0.0	1.9	7.74
Myrnam, Municipal	13.31	53.7	30.8	4.5	0.3	5.5	1.4	2.2	1.6	14.44
Olds, Municipal	10.44	46.5	38.0	4.8	1.1	3.2	2.2	3.6	0.6	12.09

TABLE No. 10—Continued

HOSPITALS	Operating Cost Per Patient Per Day	PERCENTAGE OF TOTAL OPERATING EXPENDITURE								Revenue Per Patient Per Day
		Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	
Oyen, Municipal	11.35	47.5	29.9	8.4	0.9	5.1	5.3	1.7	1.2	11.54
Peace River, Municipal	9.67	51.1	33.2	4.6	1.2	4.0	2.9	1.8	1.2	10.47
Pincher Creek, St. Vincent's	7.98	48.5	23.8	2.8	0.7	13.1	6.3	4.1	0.7	5.91
Ponoka, Municipal	12.95	49.3	24.5	3.1	1.7	13.2	1.9	5.9	0.4	13.99
Provost, Municipal	12.49	44.3	32.0	5.2	0.9	9.9	2.1	5.4	0.2	13.44
Radway, St. Joseph's	10.16	56.1	30.0	4.0	0.6	5.6	3.2	0.1	0.4	9.80
Raymond, Municipal	11.88	48.4	38.9	3.6	0.4	3.8	1.8	2.6	0.5	12.62
Red Deer, Municipal	12.30	51.7	27.4	4.4	0.5	8.6	1.8	4.4	1.2	12.99
Rimbey, Municipal	10.99	37.9	35.1	3.8	1.1	9.6	7.0	4.9	0.6	12.14
Rocky Mountain House, Municipal	8.37	45.9	29.0	5.2	0.9	7.6	2.8	7.6	1.0	11.08
Smoky Lake, George McDougall	12.93	56.5	24.7	4.0	0.2	4.5	8.1	0.5	1.5	11.34
Spirit River, Holy Cross	7.25	45.4	36.4	3.6	0.4	3.3	5.4	0.0	5.5	8.13
St. Paul, St. Theresa	7.64	57.3	24.4	2.6	1.6	7.5	5.3	0.9	0.4	8.30
Stettler, Municipal	11.19	53.4	32.1	2.4	0.5	4.4	3.7	2.8	0.7	11.67
Taber, Municipal	13.03	42.9	29.2	3.4	0.4	13.6	3.2	6.5	0.8	13.15
Three Hills, Municipal	18.12	46.8	23.9	3.6	0.7	13.9	5.9	4.2	1.0	18.86
Tofield, Municipal	10.49	37.8	36.2	4.4	1.1	11.2	4.0	5.2	0.1	13.23
Trochu, St. Mary's	11.08	39.5	25.6	2.7	0.6	25.0	1.2	4.2	1.2	9.08
Turner Valley, Municipal	10.65	44.0	30.2	5.4	0.1	1.1	18.3	0.9	—	12.62
Two Hills, Municipal	10.47	49.2	29.6	3.0	0.5	7.7	4.7	4.7	0.6	12.66
Vegreville, St. Joseph's General	11.04	45.5	33.5	7.8	0.9	7.9	3.2	0.9	0.3	10.72
Vermilion, Municipal	8.20	51.2	31.6	3.9	0.9	6.8	3.4	0.0	2.2	10.11
Viking, Municipal	10.80	42.6	38.2	3.8	1.0	4.3	2.7	5.8	1.6	13.21
Vilna, Our Lady's	11.64	65.7	21.4	2.3	0.1	6.5	3.1	0.0	0.9	8.37
Vulcan, Municipal	10.43	46.4	26.1	4.4	1.0	11.8	6.7	2.3	1.3	10.46
Wainwright, Municipal	9.82	45.4	28.8	3.7	1.1	13.1	2.6	5.1	0.2	10.37
Westlock, Immaculata	8.66	52.5	24.1	2.6	0.4	11.6	3.0	5.5	0.3	8.88
Wetaskiwin, Community	9.32	52.4	26.0	4.2	0.8	10.0	6.3	0.0	0.3	8.85
Willingdon, General	9.03	62.5	23.1	1.7	0.7	7.6	2.6	0.1	1.7	8.00
ALL HOSPITALS	12.56	57.4	26.7	2.7	0.7	4.8	3.2	3.4	1.1	12.57

Not reporting: Canmore Hospital; Edmonton, Beulah Home; Medicine Hat, Isolation; Manning, Municipal.

TABLE No. 11—GRANTS AND PAYMENTS TO APPROVED HOSPITALS, 1954

APPROVED HOSPITALS	70c PER DIEM GRANT			MATERNITY BENEFITS				PENSION BENEFITS				Total Payment		
	Grant Days	Non-Grant Days	Amount	Days	Amount	Cases Discharged	Total Amount	Days	Amount	Special Services Days	Amount		Total Amount	
Athabasca, Municipal	9,392	206	\$ 6,574.40	1,632	\$ 10,281.60	211	\$ 2,321.00	\$ 12,602.60	1,146	\$ 7,219.80	1,032	\$ 1,754.40	\$ 8,974.20	\$ 28,151.20
Banff, Mineral Springs	10,610	4,085	7,427.00	429	2,702.70	64	704.00	3,406.70	318	2,003.40	161	273.70	2,277.10	13,110.80
Barrehead, St. Joseph's	11,817	134	8,271.90	1,518	9,563.40	219	1,971.00	11,534.40	2,222	13,998.69	1,749	2,710.95	16,709.55	36,515.85
Bassano, Municipal	6,141	140	4,298.70	687	4,322.30	80	720.00	5,042.30	256	1,612.80	224	347.20	1,960.00	11,301.00
Beaverlodge, Municipal	3,325	63	2,327.50	588	3,704.40	110	990.00	4,694.40	268	1,688.40	223	345.65	2,034.05	9,055.95
Bentley, Municipal	2,787	4	1,950.90	502	3,162.60	61	671.00	3,833.60	263	1,656.90	217	368.90	2,025.80	7,810.30
Berwyn, Municipal	4,750	33	3,325.00	671	4,227.30	82	738.00	4,965.30	486	3,061.80	392	607.60	3,669.40	11,959.70
Blairmore, Crow's Nest Pass Mun.	13,287	260	9,300.90	1,491	9,393.30	214	2,354.00	11,747.30	2,330	14,679.00	1,610	2,737.00	17,416.00	38,464.20
Bonnyville, Katherine H. Prittie	2,915	146	2,040.50	531	3,345.30	69	621.00	3,966.30	329	2,072.70	300	465.00	2,537.70	8,544.50
Bonnyville, St. Louis	11,429	1,494	8,000.30	1,342	8,454.60	155	1,395.00	9,849.60	2,073	13,059.90	1,658	2,569.90	15,629.80	33,479.70
Brooks, Municipal	14,303	184	10,012.10	1,960	12,348.00	261	2,871.00	15,219.00	925	5,827.50	759	1,290.30	7,117.80	32,348.90
Calgary, Alberta Red Cross	39,039	988	27,327.30	20,560	169,618.85	3,088	55,584.00	225,202.85	18,977	156,536.10	12,239	30,597.50	187,133.60	544,363.45
Calgary, General	188,610	9,247	132,027.00	17,291	142,641.55	2,535	45,630.00	188,271.55	10,153	83,762.25	6,888	17,220.00	100,982.25	372,779.20
Calgary, Holy Cross	119,322	7,322	83,525.40	1,973	12,429.90	263	2,893.00	15,322.90	—	—	—	—	—	18,641.60
Calgary, Salvation Army Grace	4,741	552	3,318.70	—	—	—	—	—	—	—	—	—	—	—
Canmore, St. Mary's	26,719	422	18,703.30	4,147	28,614.30	491	6,383.00	34,997.30	4,196	28,952.40	2,899	5,363.15	34,315.55	88,016.15
Canmore, Canmore	2,525	71	1,767.50	260	1,638.00	41	369.00	2,007.00	186	1,171.80	175	271.25	1,443.05	5,217.55
Cardston, Municipal	8,139	220	5,697.30	1,493	9,405.90	198	1,782.00	11,187.90	1,062	6,690.60	956	1,481.80	8,172.40	25,057.60
Cardstony, Little Bow Municipal	2,029	1	1,420.30	163	1,026.90	20	180.00	1,206.90	402	2,532.60	306	474.30	3,006.90	5,634.10
Castor, Our Lady of the Rosary	7,588	108	5,311.60	987	6,218.10	125	1,375.00	7,593.10	1,150	7,245.00	842	1,305.10	8,550.10	21,454.80
Cered, Municipal	2,815	51	1,970.50	285	1,795.50	35	315.00	2,110.50	738	4,649.40	671	1,040.05	5,689.45	9,770.45
Clareholm, Municipal	10,904	322	7,632.80	1,308	8,240.40	153	1,683.00	9,923.40	1,105	6,961.50	724	1,230.80	8,192.30	25,748.50
Coaldale, Community	4,636	162	3,245.20	718	4,523.40	93	837.00	5,360.40	722	4,548.60	604	936.20	5,484.80	14,090.40
Cold Lake, John Neil	3,472	1,600	2,430.40	728	4,300.00	113	791.00	5,159.00	210	1,260.00	192	240.00	1,500.00	9,089.40
Consort, Municipal	4,831	417	3,381.70	689	4,340.70	80	720.00	5,060.70	751	4,731.30	542	840.10	5,571.40	14,013.80
Coronation, Municipal	5,331	38	3,731.70	690	4,347.00	74	666.00	5,013.00	589	3,710.70	442	685.10	4,395.80	13,140.50
Oxland, Providence	6,456	21	4,547.20	536	3,768.00	65	585.00	3,961.80	814	5,128.20	711	1,102.05	6,230.25	14,739.25
Desmarais, St. Martin's	5,599	2,284	419.30	68	428.40	8	72.00	500.40	13	81.90	13	20.15	102.05	1,021.75
Driskury, Municipal	8,111	28	5,677.70	1,009	6,356.70	125	1,375.00	7,731.70	557	3,509.10	389	661.30	4,170.40	17,579.80
Drumheller, Municipal	22,977	856	16,083.90	2,625	18,112.50	359	4,667.00	22,779.50	2,441	16,842.90	1,552	2,871.20	19,714.10	58,577.50
Eckville, Municipal	4,952	64	3,466.40	639	4,025.70	86	946.00	4,971.70	650	4,095.00	545	844.75	4,939.75	13,377.85



## DEPARTMENT OF PUBLIC HEALTH

TABLE No. 11—Continued

APPROVED HOSPITALS	70c PER DIEM GRANT			MATERNITY BENEFITS				PENSION BENEFITS					Total Payment
	Days	Non-Grant Days	Amount	Days	Amount	Cases Discharged	Amount	Total Amount	Days	Amount	Special Services Days	Amount	Total Amount
Edmonton, Beulah Home	3,589	692	2,512.30	1,279	8,057.70	114	1,026.00	9,083.70	16,827	138,822.75	11,967	29,917.50	168,740.25
Edmonton, General	124,538	6,613	87,176.60	12,412	102,399.00	1,614	29,052.00	131,451.00	15,447	127,383.15	11,453	28,632.50	156,015.65
Edmonton, Misericordia	112,781	3,783	78,946.70	14,319	118,131.75	2,126	38,268.00	156,399.75	17,869	147,419.25	11,927	29,817.50	177,236.75
Edmonton, Royal Alexandra	189,193	15,088	132,435.10	32,371	267,060.75	4,244	76,392.00	343,452.75					653,124.60
Edmonton, University	191,999	56,463	134,399.30	13,017	107,390.25	1,503	27,054.00	134,444.25	21,715	179,088.90	12,753	31,882.50	479,814.95
Edson, St. John's	9,886	299	6,920.20	2,059	12,971.70	205	2,255.00	15,226.70	938	5,909.40	805	1,368.50	29,424.80
Elk Point, Municipal	15,782	1,168	11,047.40	1,289	8,120.70	163	1,687.00	9,807.30	3,271	20,607.30	2,736	4,503.00	45,965.40
Elmira, Municipal	2,414	369	1,689.80	408	2,570.40	41	369.00	2,939.40	353	2,223.90	276	427.80	7,280.90
Empress, Municipal	3,755	659	2,628.50	472	2,973.60	46	414.00	3,387.60	257	1,619.10	75	116.25	7,751.45
Fairview, Municipal	10,271	206	7,189.70	1,184	7,459.20	149	1,639.00	9,098.20	1,304	8,215.20	900	1,530.00	26,033.10
Fort Macleod, Municipal	6,064	109	4,244.80	709	4,466.70	89	801.00	5,267.70	505	3,181.50	490	759.50	13,453.50
Fort McMurray, St. Gabriel's	2,380	998	1,666.00	406	2,436.00	44	308.00	2,744.00	529	3,174.00	376	470.00	8,054.00
Fort Smith, General	582	N.A.	407.40	66	415.80	8	72.00	487.80	3	18.90	3	4.65	23.55
Fort Vermilion, St. Theresa	2,864	10,231	2,004.80	398	2,388.00	46	322.00	2,710.00	317	1,902.00	264	330.00	6,946.80
Galahad, St. Joseph's	5,870	4	4,109.00	629	3,962.70	62	558.00	4,520.70	479	3,017.70	449	695.95	12,343.35
Glendon, Municipal	4,020	16	2,814.00	591	3,723.30	75	675.00	4,398.30	779	4,907.70	633	981.15	13,101.15
Grande Prairie, Municipal	24,399	1,444	17,079.30	2,644	16,657.20	395	4,345.00	21,002.20	3,508	22,100.40	2,367	4,023.90	64,205.80
Hythe Sub Hospital	1,712	381	1,198.40	250	1,575.00	36	324.00	1,899.00	391	2,463.30	324	502.20	6,062.90
Hanna, Municipal	12,068	112	8,447.60	1,591	10,022.50	171	1,881.00	11,903.50	1,638	10,279.50	1,127	1,915.90	32,546.50
Hardisty, St. Anne's	7,230	15	5,061.00	637	4,013.10	59	531.00	4,544.10	1,023	6,444.90	666	1,032.30	17,082.30
High Prairie, Providence	16,811	4,231	11,767.70	2,129	13,412.70	305	2,745.00	16,157.70	1,221	7,692.30	1,087	1,847.90	37,465.60
High River, Municipal	13,544	215	9,480.80	1,729	10,892.70	237	2,133.00	13,025.70	1,311	8,259.30	1,018	1,730.60	32,989.90
Innisfail, Municipal	8,967	113	6,276.90	1,176	7,408.80	164	1,804.00	9,212.80	1,317	8,297.10	900	1,530.00	25,316.80
Islay, Municipal	3,138	19	2,196.60	279	1,757.70	31	279.00	2,036.70	306	1,927.80	275	426.25	6,587.35
Jasper, Seton	4,835	1,683	3,384.50	796	5,014.80	85	765.00	5,779.80	158	995.40	94	145.70	10,305.40
Killam, General	8,203	47	5,742.10	1,217	7,667.10	123	1,107.00	8,774.10	967	6,092.10	741	1,259.70	21,868.00
Lac La Biche, St. Catherine's	8,693	104	6,085.10	1,727	10,880.10	234	2,106.00	12,986.10	954	6,010.20	855	1,325.25	26,406.65
Lacombe, Municipal	16,114	95	11,279.80	2,552	16,077.60	288	3,168.00	19,245.60	1,535	9,670.50	1,371	2,330.70	42,526.60
Lamont, Archer Memorial	16,240	2,407	11,368.00	1,291	8,907.90	154	2,002.00	10,909.90	3,556	24,536.40	2,629	4,863.65	51,677.95
Lethbridge, Galt	31,938	3,601	22,356.60	3,514	24,246.60	447	5,811.00	30,057.60	5,273	36,382.70	2,956	5,468.60	94,265.50
Lethbridge, St. Michaels	65,906	2,069	46,134.20	8,215	56,683.50	1,028	13,364.00	70,047.50	6,655	45,919.50	3,880	7,178.00	169,279.20
Lloydminster, Lloydminster	15,612	73	10,928.40	1,597	10,061.10	196	2,156.00	12,217.10	1,395	8,788.50	954	1,621.80	33,555.80
McLennan, Sacred Heart	12,806	189	8,964.20	1,731	10,905.30	226	2,034.00	12,939.30	831	5,232.50	733	1,136.15	28,272.15

Magrath, Municipal	4,276	28	2,993.20	529	3,332.70	69	621.00	3,953.70	947	5,966.10	523	810.65	6,776.75	13,723.65
Manning, Municipal	3,180	36	2,226.00	693	4,158.00	108	756.00	4,914.00	276	1,656.00	246	307.50	1,963.50	9,103.50
Mannville, Municipal	4,383	64	3,068.10	710	4,473.00	89	801.00	5,274.00	729	4,592.70	524	812.20	5,404.90	13,747.00
Mayerthorpe, Municipal	9,983	143	6,988.10	1,304	8,215.20	153	1,377.00	9,592.20	1,940	12,222.00	1,339	2,176.30	14,498.30	31,078.60
Medicine Hat, General	41,261	3,262	28,882.70	5,839	40,289.10	746	6,698.00	49,987.10	5,579	38,495.10	3,783	6,998.55	45,493.65	124,363.45
Mundare, General	5,627	5	3,938.90	371	2,337.30	41	369.00	2,706.30	1,948	12,272.40	1,779	2,757.45	15,029.85	21,675.05
Myram, Municipal	4,409	35	3,086.30	452	2,847.60	47	423.00	3,270.60	1,142	7,194.60	1,033	1,601.15	8,795.75	15,152.65
Nordeg, General	307	5	214.90	81	510.30	12	108.00	618.30	1,448	9,122.40	970	1,547.00	10,669.40	833.20
Olde, Municipal	10,858	93	7,600.60	1,834	11,534.20	229	2,519.00	14,073.20	313	1,971.90	214	465.80	2,437.70	32,343.20
Oyen, Municipal	3,352	31	2,346.40	526	3,313.80	60	540.00	3,853.80	956	6,022.80	648	1,101.60	7,124.40	32,010.50
Peace River, Municipal	13,939	489	9,757.30	2,026	12,763.80	215	2,365.00	15,128.80						
Pincher Creek, St. Vincent's	10,217	1,375	7,151.90	1,263	7,956.90	141	1,551.00	9,507.50	890	5,607.00	737	1,252.90	6,859.90	23,519.70
Ponoka, Municipal	11,680	29	8,176.00	1,685	10,615.50	204	2,244.00	12,859.50	796	5,014.80	616	1,047.20	6,962.00	27,037.50
Provost, Municipal	7,641	263	5,348.70	800	5,040.00	119	1,243.00	6,283.00	935	5,890.50	839	1,371.10	7,261.60	18,893.30
Radway, St. Joseph's	4,339	119	3,037.30	801	5,046.30	95	855.00	5,901.30	936	5,896.80	771	1,195.05	7,091.85	16,030.45
Raymond, Municipal	4,824	68	3,376.80	863	5,436.90	124	1,116.00	6,552.90	709	4,466.70	522	809.10	5,275.80	15,205.50
Red Deer, Municipal	32,177	1,338	22,523.90	4,723	32,588.70	599	7,787.00	40,375.70	3,498	24,136.20	2,586	4,784.10	28,920.30	91,819.90
Rimbey, Municipal	9,498	54	6,648.60	1,445	9,103.50	207	2,277.00	11,380.50	1,278	8,051.40	1,106	1,880.20	9,931.60	27,950.70
Rocky Mountain House, Municipal	7,372	760	5,160.40	1,012	6,375.60	124	1,116.00	7,491.60	1,190	7,497.00	1,050	1,627.50	9,124.50	21,776.50
Smoky Lake, George McDougall	3,451	36	2,415.70	864	5,443.20	118	1,062.00	6,505.20	1,112	4,485.60	669	1,036.95	5,522.55	14,443.45
Spirit River, Holy Cross	11,467	316	8,026.90	1,266	7,975.80	136	1,224.00	9,199.80	1,158	7,295.40	1,059	1,641.45	8,936.85	26,163.55
St. Paul, St. Theresa	18,234	3,974	12,763.80	2,419	15,239.70	244	2,684.00	17,923.70	2,160	13,608.00	1,750	2,975.00	16,583.00	47,270.50
Stettler, Municipal	20,054	480	14,037.80	2,607	16,424.10	339	3,729.00	20,153.10	1,832	11,541.60	1,164	1,978.80	13,520.40	47,711.30
Taber, Municipal	14,906	469	10,434.20	2,829	17,872.70	365	3,285.00	21,107.70	1,120	7,056.00	849	1,315.95	8,371.95	39,613.85
Three Hills, Municipal	4,475	158	3,132.50	833	5,247.90	106	1,166.00	6,413.90	1,299	812.70	124	210.80	1,023.50	10,569.90
Tofield, Municipal	7,422	42	5,195.40	944	5,947.20	125	1,375.00	7,322.20	1,509	9,506.70	1,350	2,295.00	11,801.70	24,319.30
Trochu, St. Mary's	4,621	16	3,234.70	692	4,359.60	69	621.00	4,980.60	612	3,855.60	398	616.90	4,472.50	12,687.80
Turner Valley, Municipal	5,823	180	4,076.10	436	2,739.40	55	495.00	3,254.40	581	3,660.30	288	446.40	4,106.70	11,437.20
Two Hills, Municipal	7,569	105	5,298.30	757	4,769.10	87	957.00	5,726.10	1,823	11,484.90	1,564	2,658.80	14,143.70	25,168.10
Vegreville, St. Joseph's General	21,265	613	14,885.50	1,951	13,461.90	227	2,913.00	16,412.90	4,991	34,437.90	3,724	6,889.40	41,327.30	72,625.70
Vermilion, Municipal	10,174	425	7,121.80	1,458	9,185.40	183	2,051.00	11,198.40	1,659	10,451.70	1,103	1,709.65	12,161.35	30,481.55
Viking, Municipal	9,265	160	6,485.50	1,012	6,375.60	105	945.00	7,320.60	1,232	7,761.60	1,044	1,618.20	9,379.80	23,185.90
Vina, Our Lady's	3,146	1,291	2,202.20	827	5,210.10	78	702.00	5,912.10	491	3,093.30	484	750.20	3,843.50	11,957.80
Vulcan, Municipal	8,978	176	6,284.60	1,330	8,379.00	153	1,377.00	9,756.00	512	3,225.60	465	790.50	4,016.10	20,056.70
Wainwright, Municipal	13,666	732	9,566.20	1,778	11,291.40	225	2,475.00	13,676.40	2,349	14,798.70	1,739	2,956.30	17,755.00	40,997.60
Westlock, Immaculate	25,060	314	17,542.00	2,790	17,577.00	299	3,289.00	20,866.00	4,998	31,487.40	3,680	6,256.00	37,743.40	76,151.40
Wetaskiwin, Community	18,368	249	12,857.60	2,527	15,920.10	356	3,916.00	19,836.10	2,199	13,853.70	1,783	3,031.10	16,884.80	49,578.50
Willingdon, General	5,991	25	4,193.70	624	3,931.20	68	612.00	4,543.20	1,797	11,321.10	1,577	2,444.35	13,765.45	22,502.35
Total for Approved Hospitals	1,922,054	162,977	1,345,437.80	237,107	1,726,914.15	30,906	442,300.00	2,169,214.15	225,338	1,637,687.50	160,199	324,697.90	1,962,385.40	5,477,037.35

TABLE No. 11—Continued

APPROVED HOSPITALS	70c PER DIEM GRANT			MATERNITY BENEFITS				PENSION BENEFITS				
	Grant Days	Non-Grant Days	Amount	Days	Amount	Cases Discharged	Total Amount	Days	Amount	Special Services Days	Amount	Total Amount
<b>PRIVATE HOSPITALS:</b>												
Devon .....	—	—	—	140	700.00	19	795.00	—	—	—	—	795.00
Luscar .....	—	—	—	26	120.50	2	130.50	—	—	—	—	130.50
Swalwell .....	—	—	—	471	1,413.00	—	1,413.00	—	—	—	—	1,413.00
Mercoal .....	—	—	—	435	2,061.50	22	2,171.50	—	—	—	—	2,171.50
Sexsmith .....	—	—	—	1,000	4,777.50	53	5,042.50	—	—	—	—	5,042.50
Total for Private Hospitals .....	N.A.	N.A.	N.A.	2,072	9,072.50	96	9,552.50	N.A.	N.A.	N.A.	N.A.	9,552.50
Total for All Hospitals .....	1,922,054	162,977	1,345,437.80	1,179	1,735,986.65	31,002	2,178,766.65	225,338	1,637,687.50	160,199	324,697.90	5,486,589.85

Not included in above: \$51,631.20 paid to the Calgary Alberta Red Cross Hospital on behalf of 21,513 Orthopaedic Days ..... \$ 51,631.20  
 27,804.00 paid to the Calgary General Hospital on behalf of 3,972 Psychiatric Days ..... 27,804.00  
 23,422.00 paid to the University Hospital at Edmonton on behalf of 3,346 Psychiatric Days ..... 23,422.00  
 Outpost Grants as follows: Cold Lake, John Neil ..... 2,274 days at \$1.80 and 502 days at \$1.30 ..... 4,745.80  
 Fort McMurray, St. Gabriel's ..... 1,497 days at \$1.80 and 474 days at \$1.30 ..... 3,310.80  
 Fort Vermilion, St. Theresa ..... 1,770 days at \$1.80 and 722 days at \$1.30 ..... 4,124.60  
 Manning, Municipal ..... 2,032 days at \$1.80 and 478 days at \$1.30 ..... 4,279.00  
 Hospitalization of Pensioners in Macklin Hospital, Macklin, Saskatchewan ..... 13.05  
 Hospitalization of Maternity cases in border hospitals outside the Province ..... 384.20

TOTAL ..... \$5,606,304.50 \$5,606,304.50



## THE PROVINCIAL-MUNICIPAL HOSPITALIZATION PLAN

The Provincial-Municipal Hospitalization Plan has been in operation for four and one-half years as of December 31st, 1954. Each year has seen an increase in utilization of hospital services and facilities by residents of the Province, with a more than comparable increase in total expenditures by the governments concerned. Whereas in 1951 only 28.4% of the patients and 25.2% of the total days in approved hospitals were covered under the plan, in 1954 45.9% of the patients and 40.9% of the days were covered. During the same period the Department of Public Health's contribution rose from \$20.17 to \$34.25 per case. On a per capita basis the province's payment rose from \$1.01 in 1951 to \$3.04 in 1954.

There were no major changes in the program under the Plan during the year 1954.

The following table shows the utilization of hospital services in approved hospitals under the plan for 1951-1954:

Year	Total Days	Patients Discharged and Died	Average Days Stay	% of Total Hospital Days
1951	357,321	46,779	7.6	20.0
1952	500,006	65,862	7.6	31.4
1953	660,468	85,526	7.7	38.5
1954	721,566	92,261	7.8	40.9

The service provided under the plan up until June 30, 1953, was standard ward care only, while a complete service was available subsequently. Utilization more than doubled during the period 1951-1954, while the average stay increased from 7.6 to 7.8.

Following is the comparative hospitalization data for standard ward care only and complete care under the plan:

Year	Type Care	Total Days	Patients Discharged and Died	Average Stay
1953	Standard Ward Care	553,666	72,372	7.6
"	Complete Care	106,802*	13,154*	8.1
1954	Standard Ward Care	353,744	44,817	7.9
"	Complete Care	367,822	47,441	7.75

\* Six months only.

On the basis of availability of coverage, the plan as of December 31, 1954, was in effect in municipalities and hospital districts which contain 96% of the population of the Province, excluding National Parks and Indian Reserves. The foregoing is based on the distribution of population as given by the Federal Census of June, 1951.

Grants paid or payable as reimbursements to local authorities by the Province for hospitalization under the Provincial-Municipal Hospitalization Plan in 1954 amounted to \$2,636,836.48, an increase of \$592,939.49 over 1953. This is explained by some increase in coverage of the population under the plan and by increased adoption of the complete plan rather than just the standard ward care.

The rates paid under the program remained unchanged in 1954 from the previous year.

The standard ward rates as established by Provincial Regulations for the Provincial-Municipal Hospitalization Plan were:

PROVINCIAL-MUNICIPAL HOSPITALIZATION PLAN  
STANDARD WARD RATES

Hospital Group	Patient Pays	Municipality Pays	Province† Pays	Total* Payment
Group "A" -----	\$1.00	\$3.62½	\$4.32½	\$8.95
Group "B" -----	\$1.00	\$2.95	\$3.65	\$7.60
Group "C" and "D" -----	\$1.00	\$2.65	\$3.35	\$7.00
Group "E" -----	\$1.00	\$2.50	\$5.00‡	\$8.50

\* Adult rates: rates for children under 16 years of age are \$1.00 less.

† Including Per Diem Grant.

‡ Including Out-post Hospital Grant.

The rates for special hospital services were:

Group A Hospitals, \$4.00 per day.

Group B Hospitals, \$3.20 per day.

Group C Hospitals, \$2.40 per day.

Group D Hospitals, \$2.00 per day.

Group E Hospitals, \$1.20 per day.

The patient pays 25% of the above amounts, and the remainder is paid by the local authority, which is reimbursed 50% by the Province.

The following table gives the details of the amounts paid to individual Municipal Hospital Districts and local municipal authorities:

TABLE No. 12—HOSPITALIZATION PAYMENTS TO LOCAL AUTHORITIES, 1954

LOCAL AUTHORITY	No. of Partic- ipating Months	ADULTS—16 and Over		CHILDREN—Under 16		NEWBORN		SPECIAL SERVICES		TOTAL AMOUNT	
		Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount
Andrew, Village	12	310	\$ 865.30	136	\$ 300.20	—	—	—	\$ —	446	\$ 1,165.50
Arrowwood, Village	12	71	188.15	92	197.80	—	—	—	—	163	385.95
Athabasca, M. H. D.	12	3,924	10,387.80	1,159	2,491.85	25	25.00	4,941	4,446.90	5,108	17,351.55
Barrhead, M. H. D.	12	4,645	12,309.25	1,148	2,468.20	—	—	—	—	5,793	14,777.45
Bashaw, Village	12	290	842.00	84	198.90	—	—	—	—	374	1,040.90
Bassano, M. H. D.	12	3,453	9,142.80	1,230	2,644.50	5	5.00	3,111	2,333.25	4,688	14,125.55
Bawlf, Village	12	240	659.25	35	77.50	—	—	—	—	275	736.75
Beaver, M. D.	12	237	699.15	51	124.95	—	—	—	—	288	824.10
Beaverlodge, M. H. D.	12	1,270	3,365.50	309	664.35	—	—	1,436	1,077.00	1,579	5,106.85
Bentley, M. H. D.	12	1,074	2,850.60	410	881.50	—	—	1,461	1,314.90	1,484	5,047.00
Berwyn, M. H. D.	12	1,830	4,849.50	530	1,139.50	2	2.00	2,303	1,727.25	2,362	7,718.25
Beverly, Town	6	821	2,976.14	279	871.88	—	—	—	—	1,100	3,848.02
Bittern Lake	12	22	64.90	9	22.05	—	—	—	—	31	86.95
Bonnyville, Town	6	400	1,060.00	125	288.75	8	8.00	—	—	533	1,356.75
Bonnyville, M. D.	12	1,988	5,263.70	827	1,778.05	—	—	—	—	2,815	7,041.75
Bowness, Town	12	2,013	7,292.28	1,165	3,602.97	38	38.00	—	—	3,216	10,933.25
Boyle, M. H. D.	12	1,229	3,241.55	575	1,236.25	—	—	1,600	1,319.70	1,804	5,797.50
Brooks, M. H. D.	12	6,783	17,655.45	1,830	3,934.50	56	56.00	—	—	8,669	21,945.95
Bruderheim, Village	12	194	572.30	59	144.55	—	—	—	—	253	716.85
Burdett, Village	12	23	60.95	11	23.65	—	—	—	—	34	84.60
Calgary City with Holy Cross	12	28,022	101,564.65	5,088	15,879.71	106	106.00	—	—	33,216	117,550.36
Calgary City with General	12	52,950	188,562.85	9,748	30,446.85	63	63.00	—	—	62,761	219,072.70
Calgary City Emergency and Referrals	12	1,666	5,297.50	370	1,039.28	18	18.00	—	—	2,054	6,354.78
Calgary Rural, M. H. D.	12	15,519	54,212.86	4,071	12,068.74	72	72.00	—	—	19,662	66,353.60
Camrose, Town	12	3,019	8,804.30	221	539.15	5	5.00	—	—	3,245	9,348.45
Camrose, M. D.	12	3,910	11,509.00	499	1,222.55	33	33.00	—	—	4,442	12,764.55
Cardston, M. H. D.	12	4,120	10,918.00	683	1,468.45	—	—	—	—	4,803	12,386.45
Casford, M. H. D.	12	2,790	7,337.25	601	1,292.15	—	—	3,050	2,287.50	3,391	10,916.90
Cereal, M. H. D.	12	1,140	3,021.00	160	344.00	—	—	—	—	1,300	3,365.00
Chipman, Village	12	1,176	224.20	22	53.90	—	—	—	—	98	278.10
Clareholm, M. H. D.	12	3,997	10,592.05	1,067	2,294.05	—	—	—	—	5,064	12,886.10
Cold Lake, Village	12	111	277.50	21	42.00	—	—	—	—	132	319.50



## DEPARTMENT OF PUBLIC HEALTH

TABLE No. 12—Continued

LOCAL AUTHORITY	ADULTS—16 and Over			CHILDREN—Under 16			NEWBORN		SPECIAL SERVICES		TOTAL AMOUNT	
	Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount
Consort, M. H. D.	2,449	6,489.85	389	836.35	21	21.00	2,458	1,843.50	2,859	9,190.70		
Coronation, M. H. D.	2,640	6,996.00	395	849.25	14	14.00	2,809	2,106.75	3,035	9,952.00		
Cowley Village	101	267.65	100	215.00					215	496.65		
Crow's Nest Pass, M. H. D.												
Daysland, M. H. D.	5,778	15,311.70	721	1,550.15					6,499	16,861.85		
Delburne, M. H. D.	3,346	9,317.60	896	1,957.60					4,242	11,275.20		
Didsbury, M. H. D.	1,082	3,079.70	146	340.90					1,228	3,420.60		
Drumheller, M. H. D.	3,082	8,167.30	742	1,595.30	12	12.00	3,238	2,914.20	3,836	12,688.80		
	10,979	32,388.05	2,180	5,341.00	81	81.00	11,943	15,623.90	13,240	53,433.95		
Ekville, M. H. D.												
Edmonton City with General	2,540	6,728.75	762	1,638.30			3,087	2,315.25	3,302	10,682.30		
Edmonton City with Misericordia	22,064	79,958.81	5,661	17,677.60	111	111.00	27,550	41,325.00	27,836	139,072.41		
Edmonton City with Royal Alexandra	20,723	75,111.47	4,251	13,269.88	103	103.00	24,823	37,234.50	25,077	125,718.85		
Edmonton City with University	31,954	115,833.26	8,833	27,603.17	399	399.00	40,676	61,014.00	41,186	204,849.43		
	33,330	120,791.24	3,634	11,356.26	246	246.00	36,913	55,369.50	37,210	187,763.00		
Edmonton City Emergency and Referred												
Elk Point, M. H. D.	837	2,785.96	121	328.33	17	17.00	915	1,200.45	975	4,331.74		
Enora, M. H. D.	4,077	10,782.90	1,744	3,744.20	24	24.00	5,214	4,427.10	5,845	18,978.20		
Empress, M. H. D.	1,213	3,206.35	98	210.70			1,225	918.75	1,311	4,355.80		
Evansburg, Village	1,614	4,277.10	403	866.45					2,017	5,143.55		
	187	677.89	58	181.26			238	357.00	245	1,216.15		
Fairview, M. H. D.												
Farintosh, Village	5,419	14,357.65	1,058	2,274.70			6,332	5,698.80	6,477	22,331.15		
Flashtaff, M. D.	148	436.60	2	4.90					150	441.50		
Foremost, Village	8,207	21,748.55	2,457	5,282.55	30	30.00	10,669	8,617.80	10,694	35,678.90		
Forestburg, Village	655	1,931.95	84	205.80					739	2,137.75		
	351	972.55	111	238.65			515	386.25	462	1,597.45		
Forest Lawn, Town												
Fort Saskatchewan, Town	300	1,087.51	98	306.26					398	1,393.77		
Forty Mile, M. D.	496	1,714.98	62	180.94			548	779.40	558	2,675.32		
Galahad, Village	2,487	7,288.55	632	1,541.30					3,119	8,829.85		
Grouxville, Village	34	48.50	12	15.00			46	34.50	46	98.00		
	70	154.00	41	69.70					111	223.70		
Glendon, M. H. D.												
Grande Prairie, M. H. D.	1,529	4,051.85	469	1,008.35			1,727	1,295.25	1,998	6,355.45		
Granum, Town	10,987	29,090.35	2,916	6,266.10	34	34.00	12,739	11,402.10	13,937	46,792.55		
	354	943.40	44	94.60					400	1,038.00		
Hanna, M. H. D.	4,490	11,898.50	1,111	2,388.65					5,601	14,287.15		

Hay Lakes, Village	12	164	483.80	12	29.40	—	—	—	176	513.20
High River, M. H. D.	12	7,996	21,189.40	913	1,962.95	18	18.00	8,519	8,927	30,837.45
Holden, M. H. D.	12	156	432.60	25	53.75	18	18.00	—	199	504.35
Hughenden, M. H. D.	12	1,385	3,636.50	482	1,036.30	—	—	—	1,867	4,672.80
Innisfail, M. H. D.	12	4,092	10,850.40	754	1,624.70	20	20.00	4,036	4,866	16,127.50
Irrma, M. H. D.	12	1,087	2,872.45	74	159.10	—	—	1,077	1,161	3,937.40
Islay, M. H. D.	12	1,891	5,011.15	572	1,229.80	—	—	2,048	2,463	7,776.95
Killam, Village	12	135	357.75	116	249.40	14	14.00	230	265	828.15
Kitscoty, Village	12	243	632.10	6	12.90	—	—	—	249	645.00
Lac La Biche, Town	12	339	745.80	191	324.70	—	—	290	530	1,288.00
Lacombe, M. H. D.	12	6,768	17,934.30	1,633	3,510.95	8	8.00	8,212	8,409	28,844.05
Lamont, Village	12	484	1,427.80	105	257.25	—	—	—	589	1,685.05
Lamont, M. D.	12	7,277	20,901.05	2,078	4,857.75	—	—	—	9,355	25,788.80
Leduc, Town	12	901	3,266.16	198	618.79	17	17.00	—	1,116	3,901.95
Leduc, M. D.	12	6,252	21,844.90	1,125	3,417.41	66	66.00	7,115	7,443	35,533.41
Legal, Village	9	109	368.82	110	290.14	—	—	134	219	859.96
Lethbridge M. H. D. with Coaldale	12	1,224	3,243.60	382	821.30	21	21.00	—	1,627	4,085.90
Lethbridge M. H. D. with Galt	12	8,651	25,518.85	1,684	4,125.80	2	2.00	—	10,337	29,646.65
Lethbridge M. H. D. with St. Michael's	12	19,489	57,493.35	5,373	13,160.65	44	44.00	—	24,906	70,698.00
Lethbridge M. H. D. Emergency and Referred	12	1,508	4,392.80	255	612.15	—	—	—	1,763	5,004.95
Little Bow, M. H. D.	12	919	2,435.35	125	268.75	—	—	—	1,044	2,704.10
Lloydminster, M. H. D.	12	8,079	21,406.65	1,922	4,128.10	41	41.00	9,978	10,042	34,555.95
Lougheed, Village	12	140	371.00	57	122.55	—	—	—	197	493.55
McLennan, Town	12	550	1,457.50	342	735.30	—	—	—	892	2,192.80
Macleod, M. H. D.	12	2,538	6,748.50	480	1,046.10	—	—	—	3,018	7,794.60
Magrath, M. H. D.	12	1,874	4,966.10	332	713.80	2	2.00	1,924	2,208	7,124.90
Manning, Village	12	148	370.00	61	122.00	—	—	—	209	492.00
Manning, M. H. D.	2	64	160.00	62	124.00	—	—	—	126	284.00
Mannville, M. H. D.	12	1,303	3,452.95	546	1,173.90	—	—	1,848	1,849	6,012.85
Mayerthorpe, M. H. D.	12	3,446	9,109.40	938	2,016.70	1	1.00	4,228	4,385	14,932.30
Medicine Hat, City	12	10,190	30,060.50	1,300	3,181.00	70	70.00	—	11,560	33,311.50
Millet, Village	12	167	501.06	24	51.60	—	—	191	191	760.56
Milo, Village	12	51	119.85	4	7.40	—	—	—	55	127.25
Minburn, M. D.	12	1,027	2,954.95	420	998.10	—	—	223	1,447	4,188.25
Morinville, M. D.	12	3,796	12,806.98	1,368	3,810.93	7	7.00	—	5,171	16,624.91
Mundare, Town	12	301	797.65	88	189.20	—	—	337	389	1,239.60
Municipal Affairs S.A. No. 2, No. 3	12	280	792.70	5	10.75	—	—	—	285	803.45
Municipal Affairs I. D. No. 11, 21, 22	12	1,585	4,670.55	388	948.70	70	70.00	—	2,043	5,689.25
Municipal Affairs I. D. No. 77	12	3,955	12,700.11	843	2,367.84	7	7.00	—	4,805	15,074.95
Municipal Affairs I. D. No. 76, No. 77	12	1,688	4,455.80	619	1,319.15	9	9.00	—	2,316	5,783.95
Municipal Affairs I. D. No. 78, No. 95	12	2,945	7,734.80	1,304	2,782.90	22	22.00	3,484	4,271	13,004.50

TABLE No. 12—Continued

LOCAL AUTHORITY	No. of Partic- ipating Months	ADULTS—16 and Over		CHILDREN—Under 16		NEWBORN		SPECIAL SERVICES		TOTAL AMOUNT	
		Days	Amount	Days	Amount	Days	Amount	Days	Amount	Days	Amount
Municipal Affairs I. D. No. 102	12	1,845	4,879.80	642	1,380.30	—	—	1,934	1,450.50	2,487	7,710.60
Municipal Affairs I. D. No. 107	12	1,634	4,323.50	537	1,123.05	—	—	—	—	2,171	5,446.55
Municipal Affairs I. D. No. 125	12	1,747	4,629.55	584	1,255.60	—	—	—	—	2,331	5,885.15
Municipal Affairs I. D. No. 138	12	1,415	3,654.80	557	1,166.20	—	—	—	—	1,972	4,821.00
Municipal Affairs I. D. No. 147	12	1,005	2,512.50	444	888.00	—	—	—	—	1,449	3,400.50
Myrnam, M. H. D.	12	1,564	4,140.10	549	1,180.35	31	31.00	2,089	1,566.75	2,144	6,918.20
New Norway, Village	12	84	247.80	21	51.45	—	—	—	—	105	299.25
Okotoks, Town	12	536	1,647.59	106	270.82	—	—	—	—	642	1,918.41
Olds, M. H. D.	12	3,980	10,541.90	694	1,492.10	—	—	4,110	3,699.00	4,674	15,733.00
Oyen, M. H. D.	12	1,535	4,067.15	325	698.75	—	—	—	—	1,860	4,765.90
Peace River, M. H. D.	12	5,080	13,455.40	1,904	4,093.60	102	102.00	6,941	6,246.90	7,086	23,897.90
Pembina, M. D.	12	2,027	7,338.58	371	1,159.41	—	—	—	—	2,398	8,497.99
Penhold, Village	12	132	385.50	33	80.85	—	—	—	—	165	466.35
Pincher Creek, M. D.	12	2,646	7,011.90	983	2,113.45	50	50.00	—	—	3,679	9,175.35
Pincher Creek, Town	12	1,202	3,185.30	508	1,092.20	—	—	—	—	1,710	4,277.50
Ponoka, M. H. D.	12	5,685	15,065.25	1,512	3,250.80	37	37.00	7,034	6,330.60	7,234	24,683.65
Provost, M. H. D.	12	3,485	9,226.25	810	1,741.50	10	10.00	—	—	4,305	10,977.75
Provost, M. D.	12	162	439.30	53	113.95	—	—	—	—	215	543.25
Public Welfare Metis Colony No. 1	12	102	255.00	61	122.00	—	—	—	—	163	377.00
Public Welfare Metis Colony No. 3	12	175	463.75	78	167.70	—	—	—	—	253	631.45
Public Welfare Metis Colony No. 7	12	52	137.80	110	236.50	—	—	—	—	162	374.30
Public Welfare Metis Colony No. 8	12	11	29.15	177	380.55	—	—	—	—	188	409.70
Public Welfare Metis Colony No. 10	12	253	669.85	475	1,014.20	—	—	—	—	728	1,684.05
Radway, Village	12	21	55.65	36	77.40	—	—	—	—	57	133.05
Raymond, M. H. D.	12	1,789	4,740.85	273	586.95	—	—	—	—	2,062	5,327.80
Redcliff, Town	12	769	2,266.45	193	472.05	15	15.00	—	—	977	2,753.50
Red Deer, M. H. D.	12	10,056	29,653.80	2,833	6,939.95	61	61.00	12,788	15,334.80	12,950	51,989.55
Rimbey, M. H. D.	12	2,762	7,315.10	731	1,571.65	—	—	2,805	2,524.50	3,493	11,411.25
Rocky Mountain House, M. H. D.	12	2,421	6,415.65	751	1,614.65	11	11.00	—	—	3,183	8,041.30
Sedgewick, Village	12	662	1,750.70	99	203.85	—	—	761	680.70	761	2,635.25
Smoky Lake, M. D.	12	3,861	10,191.60	602	1,294.30	13	13.00	—	—	4,476	11,498.90
Smoky River, M. D.	12	3,809	9,827.10	2,867	6,037.65	80	80.00	—	—	6,756	15,944.75
Spirit River, M. H. D.	12	4,917	12,944.65	1,740	3,724.70	2	2.00	6,073	4,554.75	6,659	21,226.10



Stettler, M. H. D.	12	8,458	21,667.75	1,946	3,958.05	—	6.00	9,338	8,404.20	10,404	34,030.00
Stony Plain, Town	12	422	1,529.79	212	662.52	6	—	—	—	640	2,198.31
Stony Plain, M. D.	12	4,235	15,330.46	958	2,993.79	36	36.00	5,100	7,636.80	5,229	25,997.05
St. Paul, M. H. D.	12	6,357	16,836.45	5,402	11,611.00	90	90.00	10,774	9,632.25	11,849	38,169.70
Strathcona, M. D.	12	4,128	14,497.99	993	3,058.52	20	20.00	4,996	7,287.60	5,141	24,864.11
Strome, Village	12	244	646.60	53	113.95	—	—	271	221.10	297	981.65
Sturgeon, M. D.	12	3,850	13,491.11	1,021	2,874.81	2	2.00	2,343	3,513.60	4,873	19,881.52
Sylvan Lake, Town	12	819	2,416.05	121	296.45	—	—	—	—	940	2,712.50
Taber, M. H. D.	12	4,253	11,270.45	1,202	2,584.30	22	22.00	—	—	5,477	13,876.75
Thorhild, Village	12	117	310.05	59	126.85	—	—	110	96.00	176	532.90
Thorsby, Village	12	324	1,174.53	6	18.76	—	—	325	487.50	330	1,680.79
Three Hills, M. H. D.	12	1,930	5,097.10	469	1,008.35	—	—	—	—	2,399	6,105.45
Tofield, M. H. D.	12	2,269	6,012.85	294	632.10	20	20.00	1,965	1,473.75	2,583	6,664.95
Trochu, M. H. D.	12	1,932	4,974.45	570	1,177.80	48	48.00	—	—	2,550	7,674.00
Turner Valley, M. H. D.	12	2,839	7,523.35	703	1,511.45	—	—	3,542	3,429.00	3,542	9,034.80
Two Hills, M. H. D.	12	2,864	7,059.60	1,196	2,571.40	36	36.00	3,810	3,429.00	3,896	13,096.00
Vegreville, M. H. D.	12	5,895	17,362.65	2,316	5,666.70	3	3.00	7,940	9,496.50	8,214	32,528.85
Vermilion, M. H. D.	12	3,969	10,517.85	820	1,763.00	—	—	4,429	3,321.75	4,789	15,602.60
Viking, M. H. D.	12	4,357	11,546.05	1,458	3,134.70	50	50.00	5,797	4,347.75	5,865	19,078.50
Vulcan, M. H. D.	12	4,675	12,367.15	971	2,087.65	23	23.00	—	—	5,669	14,477.80
Wainwright, M. H. D.	12	4,142	10,967.30	742	1,595.30	—	—	4,589	4,130.10	4,884	16,692.70
Warburg, Village	8	25	90.63	—	—	—	—	25	37.50	25	128.13
Westlock, Town	12	520	1,378.00	173	271.95	—	—	—	—	693	1,749.95
Westlock, M. D.	12	5,912	15,665.90	1,703	3,660.55	60	60.00	—	—	7,675	19,386.45
Wetaskiwin, City	12	2,378	6,301.70	377	810.55	22	22.00	2,747	2,472.30	2,777	9,606.55
Wetaskiwin, M. D.	12	4,011	10,576.55	1,056	2,237.70	36	36.00	4,775	4,297.50	5,103	17,147.75
Willingdon, M. H. D.	12	1,552	4,141.65	795	1,727.00	9	9.00	2,302	1,898.40	2,356	7,776.05
TOTALS		596,560	1,829,753.51	147,437	369,527.57	2,875	2,875.00	381,612	434,680.40	746,872	2,636,836.48

## MATERNITY HOSPITALIZATION PLAN

The Alberta Maternity Hospitalization Plan, administered under the authority of The Maternity Hospitalization Act, provides the following for women who are residents of Alberta or whose husbands are residents:

- (a) hospitalization as a routine maternity case for herself and newborn infant for a maximum period of 12 days;
- (b) a grant to any woman who is confined in a hospital outside the Province because an Alberta hospital is not accessible in her area;
- (c) a grant of \$40.00 may be paid to a woman who is confined at home.

Of all live births in the Province in 1954, 96.4% occurred in approved hospitals. The Province spent \$2,179,150.85 for maternity hospitalization, and \$14,000.00 on behalf of 350 mothers who were confined at home. The Province continued to pay the standard ward rate plus a per case payment for maternity hospitalization and the provision of routine maternity services in hospital.

The standard ward and per case payments, which vary according to the class of hospital, remained the same from 1953 and are as follows:

- Group A Hospital, \$8.25 per day plus \$18.00 per case.
- Group B Hospital, \$7.90 per day plus \$13.00 per case.
- Group C Hospital, \$6.30 per day plus \$11.00 per case.
- Group D Hospital, \$6.30 per day plus \$9.00 per case.
- Group E Hospital, \$6.00 per day plus \$7.00 per case.

In the last four years the average stay of maternity patients has declined from 8.4 days in 1951 to 7.8 days in 1954. The number of cases (discharged and died) has increased from 24,072 in 1951 to 30,564 in 1954, which may be partially due to the rising birth rate and the influx of young people into the Province. Percentage-wise, the proportion of maternity patients to total patients in the Province has increased from 14.6 in 1951 to 15.3 in 1954. The percentage of maternity to total hospital days has remained the same at 14%, due to the decrease in the average length of stay in hospital for maternity patients.

HOSPITALIZATION AND TREATMENT SERVICES  
PROGRAM FOR SOCIAL SERVICE RECIPIENTS

The program of health care for Social Service Recipients continued being administered under the authority of The Hospitalization and Treatment Services Act.

The health services provided recipients of benefits include hospitalization for active treatment care, medical services, dental services, optical services, and other treatment services that may be recommended by a physician and approved by the Director of Medical Services.

At December 31st, 1954, the Pension Group comprised the following:

	Recipients	Spouses	Dependent Children	Total
Old Age Security (a) .....	18,639	1,971	261	20,871
Old Age Assistance .....	5,151	969	247	6,367
Mother's Allowance .....	1,653	—	4,017	5,670
Widow's Allowance .....	709	—	3	712
Blind Pension .....	377	111	116	604
Old Age Security (b) .....	336	—	0	336
Total .....	26,865	3,051	4,644	34,560

(a) Recipients of Old Age Security plus supplementary allowance. Recipients and dependents entitled to services.

(b) Recipients of Old Age Security with income not exceeding \$1,000.00 if single, \$1,500 if married. Recipient alone entitled to service.

The average number in the group for the year was 33,765. Expenditures on behalf of the group were as follows:

Hospitalization .....	\$1,962,398.45
Medical .....	543,848.86
Dental .....	134,853.00
Optical and Optometric .....	75,548.69
Other treatment services .....	3,555.00
Total .....	\$2,720,204.00

Average per capita expenditure for the group in 1954 was \$80.56, as compared with \$72.56 in 1953.

#### 1. Hospitalization of Social Service Recipients

Hospitalization is provided for the Social Service Recipients where active treatment care only is required. It includes standard ward care along with all special hospital services provided by the hospital with the exception of certain listed drugs, also appliances, which are primarily intended for use after the patient is discharged, and procedures, treatments and tests not available in the hospital in which the patient is being hospitalized.

During 1954 hospitalization was provided for a total of 225,338 patient days in this group, an average of 6.7 days for every individual eligible for service. The average number of patient days per recipient has risen from 5.7 days in 1951 to 6.7 in 1954. Since the average stay in hospital of these patients has shown a tendency to decline during this period, from 15.5 in 1951 to 15.0 in 1954, the rise in the number of patient days per recipient indicates that there has been a rise in the number of admissions per recipient.

The following table shows the average stay in hospital for each type of recipient, the number of individuals hospitalized, compared with the number eligible for service:

	Average Eligible	Number Hospitalized	% of Eligible	Average stay in hospital
Old Age Group .....	26,987	13,410	49.7	15.7
Mother's Allowance .....	5,497	1,061	19.3	7.0
Blind Pension .....	599	293	48.9	15.8
Widow's Allowance .....	682	323	47.4	11.9
	33,765	15,087	44.7%	15.0

The Province continued to pay the hospital the standard ward rate plus a daily payment for the first 20 days following admission to cover the cost of providing special hospital services



on behalf of hospitalized pensioners. The amount of this payment varies according to the class of hospital, as follows:

Group A Hospital .....	\$8.25 per day plus \$2.50 per day up to 20 days
Group B Hospital .....	\$6.90 per day plus \$1.85 per day up to 20 days
Group C Hospital .....	\$6.30 per day plus \$1.70 per day up to 20 days
Group D Hospital .....	\$6.30 per day plus \$1.55 per day up to 20 days
Group E Hospital .....	\$6.00 per day plus \$1.25 per day up to 20 days

The above rates came into effect March 1, 1953.

## 2. Medical Care of Social Service Recipients

The Province pays the Alberta College of Physicians and Surgeons a per capita amount each month, based on the total number of recipients and dependents eligible for service, for the provision of complete medical care to those in the group. On April 1, 1954, the per capita payment was raised to \$1.37½ from \$1.25 per month. The total cost of this service to the Province in 1954 was \$543,848.86.

## 3. Dental Services for Social Service Recipients

The Province pays the Alberta Dental Association a per capita amount each month, based on the total number of recipients and dependents eligible for service, for the provision of dental services to this group. The per capita payment remained at 33-1/3 cents per month during 1954. The total cost of this service to the Province in 1954 was \$134,853.00. The dental services provided consist of routine dental care, one-half the cost of new dentures up to, and not exceeding, \$50.00 to be paid by the pensioner (excluding posterior bridge-work and orthodontia.).

UTILIZATION OF DENTAL SERVICES IN 1954

	Average Eligible	Number of Claims	As a % of Eligible
Old Age Group .....	26,987	2,973	11.0%
Mother's Allowance .....	5,497	2,120	38.6%
Blind Pension .....	599	135	22.5%
Widow's Allowance .....	682	127	18.6%
Total .....	33,765	5,355	15.9%

The rate of utilization has declined in 1954 to 15.9% from 16.3% in 1953. The high proportion of children in the Mother's Allowance Group accounts for the high rate of utilization of 38.6% (40.2% in 1953).

## 4. Optical Services for Social Services Recipients

Optical services provide for refraction and glasses on the recommendation of an eye specialist or an optometrist, and on the approval of the Director of Medical Services.

In 1954, a total of 6,017 accounts for glasses were approved and paid for, an expenditure of \$54,541.19. Of these 4,265 refractions were made by optometrists and the remainder were done by medical eye specialists. The total amount paid for

optometric service in 1954 was \$19,007.50. Payment to the medical eye specialists is a part of the over-all medical program.

#### 5. *Other Treatment Services for Social Service Recipients*

Other treatment services, which include physiotherapy, nursing services, chiropody and chiropractic services, may be provided on the recommendation of the patient's physician, and with the approval of the Director of Medical Services. The total expenditure on such services in 1954 was \$3.555.00.

### POLIOMYELITIS HOSPITALIZATION AND TREATMENT PROGRAM

The Poliomyelitis Sufferers' Act provides to residents of Alberta, stricken with poliomyelitis, a complete program of care. During the acute stage of the disease, isolation hospital care is provided for a period of 14 days, through hospitals that have entered into an agreement with the Province to make such care available, at the following schedule of rates:

Class of Hospital	Patient pays per day	PROVINCE PAYS PER DAY		
		For patients requiring ordinary bed care only	For Tracheotomy cases requiring bed care only	For all Respirator cases
A	\$2.00	\$10.25 and 70c	\$30.00 and 70c	\$40.00 and 70c
B	\$1.80	\$8.30 and 70c	\$30.00 and 70c	\$40.00 and 70c
C	\$1.60	\$7.10 and 70c	\$30.00 and 70c	\$40.00 and 70c
D	\$1.50	\$6.80 and 70c	\$30.00 and 70c	\$40.00 and 70c
E	\$1.30	\$5.90 and 70c	\$30.00 and 70c	\$40.00 and 70c

No medical service is provided during the isolation period.

Following the 14-day isolation period, the Province provides all necessary hospitalization for those cases that have any residual paralysis or muscle weakness, at the following schedule of rates:

Class of Hospital	Patient pays	PROVINCE PAYS PER DAY		
		Patients requiring bed care only	Extra payment for those in Respirators	For Medical Care
A	Nil	\$10.25 and 70c	\$15.00	60c
B	Nil	\$8.30 and 70c	\$15.00	60c
C	Nil	\$7.10 and 70c	\$15.00	60c
D	Nil	\$6.80 and 70c	\$15.00	60c
E	Nil	\$5.90 and 70c	\$15.00	60c

Both the above schedules for hospitalization pertain to standard ward care plus special hospital services. The 60c per patient day is designed to provide ordinary medical care to post isolation convalescent cases. This is paid to the hospital which passes it on to the doctor who is responsible for the medical care of the patient. Recommended appliances and operations are paid for directly by the Province. Out-patient physiotherapy is provided in the University of Alberta Hospital, Edmonton, and the Calgary General Hospital, Calgary.

Effective June 1st, 1954, the Province, through the College of Physicians and Surgeons, made provision for the establishment of total medical and surgical care for respirator cases, in certain specific hospitals, without charge to the patient.

During 1954 a total of \$1,079,951.24 was paid to hospitals on behalf of poliomyelitis patients as follows:

Isolation Hospital Care .....	\$ 59,422.05
Post-Isolation Hospital Care .....	914,275.80
Medical Care .....	44,619.00
Medical Supervision .....	13,416.63
Appliances and Out-patient Services..	48,217.76
	\$1,079,951.24

In addition, a total of \$29,960.00 was paid to the College of Physicians and Surgeons on behalf of respirator cases, and \$9,878.45 was paid to doctors for operative procedures.

### ALBERTA MUNICIPAL HOSPITAL DISTRICTS

The Municipal Hospitals Act, passed in 1919, made provision for the establishment of Municipal Hospital Districts on the request of ratepayers in any particular area. The provisional board of such a municipal hospital district must draft a hospitalization scheme whereby the ratepayers, and non-ratepayer contract purchasers, with their dependents, may receive standard ward hospitalization at a direct cost to them as patients of not more than \$1.00 per day. The balance of the cost of providing standard ward care, which is the liability of the hospital district, is raised by requisitions on the local authority who find these costs by a mill rate tax on real property included in the hospital district. The scheme may include provisions for construction of a hospital, or authority to enter into an agreement with an existing hospital, for the hospitalization of its ratepayers and contract holders. The scheme must subsequently be approved by 65% of the ratepayers in order to be implemented. Election of a permanent Board follows. When the Provincial-Municipal Hospitalization Plan came into effect, Municipal Hospital Districts qualified for assistance under the plan. For details see the section on Provincial-Municipal Hospitalization Plan.

There are 69 Municipal Hospital Districts in operation in the Province with 52 of them operating their own hospitals, and the remainder functioning under agreement with other hospitals. One of these, namely, Lloydminster, is located in Saskatchewan. The Municipal Hospital Districts of Holden, No. 68, Medicine Hat, No. 69, and Manning, No. 70, came into being during the year.

The total assessable acreage under The Municipal Hospital Plan on January 1st, 1954, was 32,460,215, with an assessed value of \$423,449,239.00. The total requisitions for all Municipal Hospital Districts this year was \$2,558,049.76, levied on an average mill rate tax of 6.083.



TABLE No. 13—MUNICIPAL HOSPITAL DATA, 1954

HOSPITAL	M. H. D. Number	COST/PATIENT DAY CAPITAL		Minimum Tax	Adult and Children Days Plus 1/3 Newborn Days	Bed and Crib Capacity	Dec. 31, 1954 Debiture Principal Outstanding
		Including Interest and Depreciation	Excluding Interest and Depreciation				
Athabasca .....	13	\$ 9.64	\$ 7.42	\$10.00	8,503	42	\$157,358.05
Bassano .....	6	9.76	9.23	8.00	5,823	26	—
Beaverlodge .....	32	11.56*	11.50	6.00	3,029	9	9,865.00
Bentley .....	43	16.58	13.26	8.00	3,020	16	32,000.00
Berwyn .....	50	8.18	6.48	10.00	4,336	21	32,000.00
Brooks .....	28	12.66	11.30	8.00	13,156	64	146,000.00
Cardston .....	5	11.58	11.16	10.00	7,418	24	—
Cereal .....	46	13.20	12.39	4.00	2,682	9	7,140.00
Claresholm .....	24	10.20	9.50	10.00	10,300	42	34,988.94
Consort .....	22	11.20	9.32	6.00	4,785	22	49,250.00
Coronation .....	39	8.61	8.04	10.00	4,924	18	11,000.00
Crow's Nest Pass .....	40	13.08	10.79	10.00	12,529	72	223,000.00
Didsbury .....	33	11.62	10.24	6.00	7,487	25	52,667.01
Drumheller .....	3	12.16	10.99	10.00	4,618	29	220,000.00
Eckville .....	30	12.68	10.25	10.00	4,618	29	49,075.04
Elk Point .....	18	7.78	6.43	10.00	16,065	51	122,000.00
Elnora .....	44	14.18	11.87	8.00	2,530	16	42,200.00
Empress .....	53	11.24*	11.24	10.00	4,029	23	—
Fairview .....	59	8.39	7.25	8.00	9,664	32	48,000.00
Glendon .....	57	12.11	10.55	10.00	3,676	8	45,500.00
Grande Prairie .....	14	8.61	7.81	10.00	25,756	79	50,000.00
Hanna .....	9	11.16	10.56	8.00	11,153	43	55,000.00
High River .....	11	10.34	9.32	6.00	12,623	44	68,000.00
Innisfail .....	16	10.50*	10.50	6.00	8,281	28	—
Islay .....	4	9.88	9.49	8.00	2,987	13	—
Lacombe .....	54	10.51	9.46	10.00	14,544	50	89,500.00
Little Bow .....	25	16.27*	16.27	6.00	1,929	14	—
Lloydminster .....	8	—	—	9.00	14,540	92	—
Macleod .....	48	14.25	13.67	10.00	5,678	14	7,000.00
Magrath .....	29	14.33	12.12	6.00	3,933	22	74,500.00
Manning .....	70	—	—	10.00	2,765	12	—
Mannville .....	1	11.25	10.20	8.00	3,963	15	—
Mayerthorpe .....	38	11.19	9.94	12.00	9,246	20	76,145.07
Medicine Hat .....	69	11.43	10.70	10.00	39,702	129	—
Myrnam .....	23	13.31	12.29	10.00	4,095	13	90,444.00
Olds .....	26	10.44	9.75	8.00	9,733	31	69,326.03
Oyen .....	35	11.35	10.58	10.00	3,028	17	41,311.35
Peace River .....	21	9.67	9.12	8.00	12,887	37	46,500.00
Ponoka .....	37	12.95	10.48	10.00	10,648	48	173,466.44
Provost .....	12	12.49	10.59	10.00	7,395	26	90,000.00
Raymond .....	31	11.88	11.12	10.00	4,329	18	25,098.20
Red Deer .....	15	12.30	10.75	8.00	30,021	104	398,587.47
Rimbey .....	52	10.99	9.40	9.00	8,562	19	110,500.00
Rocky Mountain House .....	49	8.37	7.11	10.00	7,393	35	112,143.00
Stettler .....	20	11.19	10.45	10.00	18,879	56	109,200.00
Taber .....	27	13.03	10.41	6.00	13,450	37	297,406.65
Three Hills .....	45	18.12	14.86	10.00	3,994	25	75,700.00
Tofield .....	47	10.49	8.78	10.00	6,748	21	85,501.47
Turner Valley .....	66	10.65*	10.46	8.00	5,699	13	8,000.00
Two Hills .....	42	10.47	9.18	10.00	7,099	25	73,500.00
Vermilion .....	2	8.20	7.64	6.00	9,630	37	231,700.00
Viking .....	10	10.80	9.72	6.00	8,746	35	106,000.00
Vulcan .....	19	10.43	8.96	6.00	8,261	37	42,000.00
Wainwright .....	17	9.82	8.06	9.00	13,066	48	150,000.00

\* Not reporting depreciation.

TABLE No. 14—REQUISITIONS COVERING 1954 OPERATIONS OF MUNICIPAL HOSPITAL DISTRICTS

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Athabasca M.H.D. No. 13</b>					
M.D. Athabasca No. 103 .....	16,836.62	398,004	2,721,265.00	6.5	5,210
L.I.D. No. 107 .....	41.19	917	6,325.00	6.5	
L.I.D. No. 122 .....	592.41	2,082	90,960.00	6.5	
Athabasca .....	5,649.50		867,447.00	6.5	
	<u>23,119.72</u>	<u>401,003</u>	<u>3,685,997.00</u>		<u>5,210</u>
<b>Bassano M.H.D. No. 6</b>					
County of Vulcan No. 2 .....	3,981.00		919,985.00	4.33	316
County of Newell No. 4 .....	5,264.00		1,216,510.00	4.33	2,054
Bow Valley No. 40 .....	4,558.00		1,053,300.00	4.33	440
L.I.D. No. 41 .....	646.00		149,250.00	4.33	85
Bassano .....	1,309.00		302,390.00	4.33	645
Hussar .....	780.00		180,342.00	4.33	180
Rosemary .....	462.00		106,673.00	4.33	200
	<u>17,000.00</u>	<u>841,583</u>	<u>3,928,450.00</u>		<u>3,928</u>
<b>Barrhead M.H.D. No. 67</b>					
Westock No. 92 .....	8,128.00	184,236	1,512,540.00	3	2,622
Lac St. Anne No. 93 .....	4,712.00	100,000	876,780.00	3	1,758
L.I.D. No. 108 .....	3,666.00	131,209	682,050.00	3	2,056
Barrhead .....	5,489.00		1,128,282.00	3	1,880
	<u>21,995.00</u>	<u>415,445</u>	<u>4,699,652.00</u>		<u>8,316</u>
<b>Beaverlodge M.H.D. No. 32</b>					
County Grande Prairie No. 1 .....	9,015.00	225,360	1,345,460.00	6.7	3,150
Beaverlodge .....	3,775.00		490,378.00	7.7	610
	<u>12,790.00</u>	<u>225,360</u>	<u>1,835,838.00</u>		<u>3,760</u>
<b>Bentley M.H.D. No. 43</b>					
M.D. Lacombe No. 64 .....	15,591.00	112,633	1,355,740.00	11.5	1,683
County of Ponoka No. 3 .....	653.00	4,392	56,860.00	11.5	34
Bentley .....	4,927.00		410,610.00	12	475
	<u>21,171.00</u>	<u>117,025</u>	<u>1,823,210.00</u>		<u>2,192</u>
<b>Berwyn M.H.D. No. 50</b>					
M.D. of Peace .....	7,708.00	175,986	1,541,768.00	5	1,736
L.I.D.'s No. 138 and 139 .....	1,321.00	58,418	264,160.00	5	405
Grimshaw .....	2,980.00		595,873.00	5	750
Berwyn .....	1,578.00	112	262,981.00	6	353
	<u>13,587.00</u>	<u>234,516</u>	<u>2,664,782.00</u>		<u>3,244</u>
<b>Boyle M.H.D. No. 61</b>					
M.D. Athabasca No. 103 .....	6,900.00	145,420	900,070.00	7.6	2,492
L.I.D. Part No. 102 .....	275.00	12,079	47,335.00	7.6	184
Boyle .....	1,800.00		238,350.00	7.6	450
	<u>8,975.00</u>	<u>157,499</u>	<u>1,185,753.00</u>		<u>3,126</u>
<b>Brooks M.H.D. No. 28</b>					
County of Newell .....	34,159.00		2,852,224.00	11.976	6,985
County of Vulcan .....	440.00		36,725.00	11.976	
Special Areas .....	879.00		73,275.00	11.976	100
L.I.D. No. 22 .....	228.00		19,080.00	11.976	22
Brooks .....	25,471.00		2,126,845.00	11.976	2,500
Duchess .....	1,741.00		145,365.00	11.976	210
Tilley .....	1,700.00		142,805.00	11.976	205
	<u>64,628.00</u>	<u>746,100</u>	<u>5,396,319.00</u>		<u>10,020</u>

TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Calgary Rural M.H.D. No. 63</b>					
Sheep River No. 31 (formerly M.D. No.s 31 and 32) .....	5,030.00	198,000	2,421,704.00	Actual 2.078	2,250
Bow Valley No. 40 .....	10,780.00	371,930	5,186,400.00	2.078	2,550
Serviceberry No. 43 .....	10,120.00	404,292	4,868,275.00	2.078	2,320
Conrich No. 44 .....	17,920.00	408,203	8,636,558.00	2.078	4,498
Springbank No. 45 .....	8,800.00	83,036	4,235,383.00	2.078	4,200
Kneehill No. 48 .....	5,790.00	184,000	2,787,855.00	2.078	1,700
Mountain View No. 49 .....	9,200.00	290,801	4,424,575.00	2.078	2,514
L.D. No. 46 .....	10,530.00	336,428	5,064,169.00	2.078	3,142
L.D. No. 50 .....	200.00	22,126	93,525.00	2.078	270
Gleichen .....	1,350.00	237	449,325.00	3.0	450
Strathmore .....	1,910.00	991	601,630.00	3.176	700
Village Acme .....	1,160.00	160	422,000.00	2.748	315
Airdrie .....	760.00	240	247,090.00	3.076	267
Beiseker .....	1,060.00	254	366,268.00	2.896	325
Cluny .....	450.00	156	133,008.00	3.38	176
Cochrane .....	1,300.00	640	388,873.00	3.34	520
Crossfield .....	1,310.00	204	428,100.00	3.06	450
Irricana .....	530.00	385	177,500.00	2.98	180
Rockyford .....	700.00	96	226,765.00	3.08	240
Standard .....	620.00	329	189,815.00	3.26	236
	89,520.00	2,302,508	41,348,819.00	2.165	27,297
<b>Cardston M.H.D. No. 5</b>					
M.D. No. 6 .....	29,523.00	600,00	4,717,510.00	7	3,319
M.D. No. 5 .....	6,688.00	300,00	955,445.00	7	500
Cardston .....	11,512.00		1,644,628.00	7	2,487
	47,723.00	900,00	6,817,583.00		6,306
<b>Castor M.H.D. No. 41</b>					
M.D. Paintearth No. 53 .....	9,318.00	344,600	2,662,210.00	3.5	1,750
M.D. Stettler No. 54 .....	1,172.00	30,584	334,825.00	3.5	193
Castor .....	2,506.00		716,073.00	3.5	800
Halkirk .....	595.00		170,000.00	3.5	150
	13,591.00	375,184	3,883,108.00		2,893
<b>Cereal M.H.D. No. 46</b>					
Special Area .....	12,800.00	692,926	1,375,021.00	9.3	810
Village of Cereal .....	845.00	60	116,870.00	7.23	156
	13,645.00	692,986	1,491,891.00		966
<b>Claresholm M.H.D. No. 24</b>					
Willow Creek No. 26 .....	19,808.00	336,846	5,853,860.00	3.44	2,600
Feb. 18, 1954, Sections 1-12, Twp. 15, Rge. 26, W4 .....		7,680		3.44	
Claresholm .....	6,933.00		2,288,165.00	3.03	2,750
Stavely .....	1,231.00		365,179.00	3.38	400
	27,972.00	344,526	8,507,204.00		5,750
<b>Consort M.H.D. No. 22</b>					
Special Area No. 3 .....	21,072.00	764,166	2,375,885.00	9	1,947
Consort .....	3,134.00		353,820.00	9	350
	24,206.00	764,166	2,729,705.00		2,297
<b>Coronation M.H.D. No. 39</b>					
M.D. Paintearth .....	8,425.00	360,000	2,106,240.00	4	1,500
Special Areas Nos. 2 and 3 .....	2,550.00	233,619	637,850.00	4	700
Town of Coronation .....	3,025.00		765,000.00	4	800
	14,000.00	593,619	3,509,090.00		3,000
<b>Crows Nest Pass M.H.D. No. 40</b>					
M.D. Pincher Creek No. 9 .....	1,203.80	46,364	135,260.00	8.9	
S.A. No. 10 .....	42,852.55		4,814,825.00	8.9	4,830
Town of Coleman .....	10,187.55		1,144,685.00	8.9	1,961
Town of Blairmore .....	15,787.00		1,773,829.00	8.9	1,933
Village of Frank .....	1,595.10		179,234.00	8.9	339
	71,626.00	46,364	8,047,903.00		9,063



TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Daysland M.H.D. No. 58</b>					
M.D. of Camrose No. 63 .....	10,003.00	250,243	3,334,550.00	3	2,926
Town of Daysland .....	1,176.00		391,972.00	3	475
	11,179.00	250,243	3,726,522.00		3,401
<b>Delburne M.H.D. No. 62</b>					
Part M.D. of Red Deer .....	5,950.00	124,840	1,288,320.00	4.61	1,400
Village of Delburne .....	1,550.00		349,073.00	4.44	450
	7,500.00	124,840	1,637,393.00		1,850
<b>Didsbury M.H.D. No. 33</b>					
M.D. Mountain View No. 49 ....	30,832.00	424,212	49,330.45	6.25	3,700
S.A. No. 50 .....	1,888.00	43,658	3,018.50	6.25	330
Town of Didsbury .....	8,704.00	902.5	12,894.08	6.75	1,176
	41,424.00	468,772.5	65,243.03		5,206
<b>Drumheller M.H.D. No. 3</b>					
M.D. Serviceberry No. 43 .....	9,170.00	143,906	1,584,173.00	5.5	900
M.D. Starland No. 47 .....	32,940.00	387,940	5,866,407.00	5.5	2,900
M.D. Kneehill No. 48 .....	17,000.00	193,920	2,994,780.00	5.5	3,000
L.I.D. No. 41 .....	820.00	44,526	141,480.00	5.5	155
L.I.D. No. 42 .....	26,910.00	40,467	3,324,505.00	5.5	6,934
S.A. No. 2 .....	1,640.00	112,250	251,330.00	5.5	150
City of Drumheller .....	17,260.00	230	2,234,700.00	7.5	2,574
Village of Munson .....	440.00	160	103,248.00	3	95
Village of Morrin .....	790.00	12	171,760.00	3	220
Village of Rumsey .....	410.00	29	103,210.00	3	121
Village of Delia .....	1,310.00	240	304,778.00	3	265
Village of Carbon .....	1,240.00	191	239,090.00	3	387
	109,930.00	923,370	17,319,461.00		17,701
<b>Eckville M.H.D. No. 30</b>					
M.D. Red Deer No. 55 .....	6,733.00	72,076	1,060,420.00	6.35	1,037
M.D. Raven No. 57 .....	3,045.00	68,731	479,550.00	6.35	1,080
M.D. Lacombe No. 64 .....	7,744.00	77,842	1,062,050.00	6.35	1,010
L.I.D. No. 65 .....	4,135.00	64,365	651,240.00	6.35	932
Eckville .....	2,508.00	80	366,195.00	6.35	379
	23,165.00	283,094	3,619,455.00		4,438
<b>Elk Point M.H.D. No. 18</b>					
M.D. St. Paul No. 86 .....	12,435.00	176,737	1,243,446.00	10	3,200
M.D. Glendon No. 88 .....	1,614.00	30,695	161,355.00	10	350
M.D. Eagle No. 81 .....	2,416.00	29,466	241,585.00	10	540
M.D. Vermilion River No. 71 ....	11,670.00	134,102	1,167,010.00	10	1,900
L.I.D. No. 85 .....	312.00	5,652	31,215.00	10	75
Village of Elk Point .....	4,219.00		421,926.00	10	550
	32,666.00	376,652	3,266,537.00		6,615
<b>Elnora M.H.D. No. 44</b>					
M.D. Red Deer .....	12,223.00	131,000	1,222,384.00	10	1,301
Kneehill .....	4,272.00	36,000	427,225.00	10	308
Village of Elnora .....	2,190.00	160	199,116.00	11	240
	18,685.00	167,160	1,848,725.00		1,849
<b>Empress M.H.D. No. 53</b>					
M.D. Acadian No. 34 .....	7,173.00	132,315	735,690.00	9.75	475
S.A. No. 3 .....	328.00	8,493	33,660.00	9.75	50
S.A. No. 2 .....	8,114.00	83,643	842,475.00	9.75	488
L.I.D. No. 21 .....	945.00	20,512	96,890.00	9.75	125
Village of Empress .....	2,969.00	320	304,545.00	9.75	475
	19,529.00	245,293	2,013,260.00		1,613
<b>Fairview M.H.D. No. 59</b>					
M.D. of Fairview No. 136 .....	10,445.00	270,664	2,321,112.00	4.5	* 2,300
L.I.D. No. 139 .....	6,580.00	279,668	1,462,407.00	4.5	1,927
Town of Fairview .....	6,113.00	221	1,018,972.00	6	1,200
Village of Hines Creek .....	1,235.00	345	274,500.00	4.5	114
	24,373.00	487,898	5,076,991.00		5,541

\* Approximately

TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Glendon M.H.D. No. 57</b>					
M.D. Glendon No. 88 .....	14,584.00	68,822	583,385.00	25	1,600
L.I.D. No. 101 .....	7,528.00	80,821	301,125.00	25	1,241
	22,112.00	149,643	884,510.00		2,841
<b>Grande Prairie M.H.D. No. 14</b>					
County of Grande Prairie .....	30,626.00	690,320	6,805,775.00	4.5	
L.I.D.'s 111, 126, 132, 134 .....	12,331.00	427,197	2,740,209.00	4.5	
Town of Grande Prairie .....	16,487.00		3,663,732.00	4.5	4,000
Village of Wembley .....	921.00		204,610.00	4.5	275
Sexsmith .....	1,679.00		373,244.00	4.5	365
Village of Hythe .....	1,897.00		421,640.00	4.5	450
	63,941.00	1,117,517	14,210,210.00		5,090
<b>Hanna M.H.D. No. 9</b>					
M.D. Starland No. 47 .....	5,188.52	77,486	693,790.00	7.4	500
M.D. Stettler No. 54 .....	3,477.12	38,754	468,820.00	7.4	338
Special Area No. 2 .....	29,175.21	1,336,502	3,934,295.00	7.4	3,350
Town of Hanna .....	15,158.07	454	2,046,465.00	7.4	2,200
Craigmyle .....	1,331.08	75	181,864.00	7.4	135
	54,330.00	1,453,271	7,325,234.00		6,523
<b>High River M.H.D. No. 11</b>					
M.D. of Vulcan No. 2 .....	43,739.00	765,582	14,579,800.00	3	(Est.) 5,000
M.D. of Sheep River No. 31 .....					
M.D. of Willow Creek No. 26 .....					
S.A. No. 27 .....	108.00	6,044	36,190.00	3	15
S.A. No. 33 .....	291.00		97,135.00	3	
Town of High River .....	6,798.00		2,266,075.00	3	2,006
Town of Nanton .....	2,967.00		989,271.00	3	1,250
Village of Blackie .....	654.00		218,095.00	3	250
Village of Cayley .....	483.00		161,098.00	3	150
	55,050.00	771,626	18,347,664.00		8,671
<b>Hughenden M.H.D. No. 51</b>					
M.D. Provost No. 52 .....	6,970.72	658,636	1,742,680.00	4	1,760
Hughenden .....	640.00		160,000.00	4	205
Czar .....	426.72		106,680.00	4	200
	8,037.44	658,636	2,009,360.00		2,165
<b>Innisfail M.H.D. No. 16</b>					
M.D. of Red Deer No. 55 .....	26,266.00	421,550	5,926,575.00	4	6,150
M.D. of Waterloo No. 56 .....	396.00	22,401	90,120.00	4	184
M.D. of Raven No. 57 .....	900.00	33,280	207,145.00	4	700
Town of Innisfail .....	3,622.00	398	1,468,315.00	4	1,509
Village of Bowden .....	780.00	44	308,160.00	4	298
	31,964.00	477,673	8,000,315.00		7,841
<b>Irma M.H.D. No. 55</b>					
M.D. .....	3,415.00	1,050,964	1,138,390.00	3	746
Villages .....	1,015.00		338,415.00	3	369
	4,430.00	1,050,964	1,476,805.00		1,115
<b>Is'ay M.H.D. No. 4</b>					
Vermilion River M.D. No. 71 ....	16,000.00	283,785	3,272,460.00	4.8	3,720
	16,000.00	283,785	3,272,460.00	4.8	3,720
<b>Lacombe M.H.D. No. 54</b>					
M.D. of Lacombe No. 64 .....	33,190.00	441,600	6,034,470.00	5.5	7,400
County of Ponoka No. 3 .....	397.00	5,325	72,310.00	5.5	65
Town of Lacombe .....	18,080.00	640	2,963,950.00	6.1	2,500
Village of Clive .....	1,365.00		248,330.00	5.5	350
Village of Blackfalds .....	690.00		125,568.00	5.5	140
	53,722.00	447,565	9,444,628.00		10,455

TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Lethbridge M.H.D. No. 65</b>					
M.D. of Willow Creek .....	226.00	2,000	41,030.00	5.5	15
Cardston .....	349.00	5,064	63,495.00	5.5	50
M.D. of Lethbridge .....	55,173.00	588,000	10,031,525.00	5.5	11,000
M.D. of Vulcan .....	26.00	3,300	4,510.00	5.5	20
M.D. of Warner .....	33,306.00	654,000	6,055,720.00	5.5	3,470
M.D. of Forty-Mile .....	4,390.00	217,360	798,225.00	5.5	800
S.A. Taber .....	7,272.00	267,102	1,322,099.00	5.5	1,100
City of Lethbridge .....	145,036.00		26,370,150.00	5.5	27,000
Town of Coaldale .....	3,863.00		702,440.00	5.5	624
Village of Warner .....	2,252.00		409,540.00	5.5	340
Village of Nobleford .....	1,880.00		341,977.00	5.5	280
Village of Barons .....	2,187.00		397,585.00	5.5	290
	255,960.00	1,736,826	46,538,296.00		44,989
<b>Little Bow M.H.D. No. 25</b>					
M.D. of Lethbridge No. 25 .....	1,700.00	19,045	283,300.00	6	161
Medical .....	1,133.00			4	
County of Vulcan No. 2 .....	11,538.00	200,000	1,923,020.00	6	1,100
Medical .....	7,692.00			4	
M.D. of Taber No. 14 .....	2.35	789	290.00	6	10
Medical .....	1.55			4	
Village of Champion .....	2,177.00		326,850.00	6	380
Medical .....	1,451.00			4	
Village of Carmangay .....	1,543.00		257,213.00	6	285
Medical .....	1,288.00			4	
	28,525.90	219,834	2,826,773.00		1,936
<b>Lloydminster M.H.D. No. 8</b>					
M.D. Vermilion River No. 71 .....	42,557.84	537,397	7,846,210.00	5.42	* 4,650
Town of Lloydminster, Alta. ....	8,763.66	400	1,615,535.00	5.42	2,132
Village of Marwayne .....	1,678.50			5.42	324
	53,000.00	537,982	9,771,185.00		7,106
* Estimated.					
<b>Macleod M.H.D. No. 48</b>					
M.D. of Willow Creek No. 26 .....	13,401.00	438,692	2,966,630.00	4.517	2,000
M.D. Pincher Creek No. 9 .....	484.00		107,240.00	4.517	60
M.D. Lethbridge .....	2,229.00		405,245.00	5.5	246
Town of Fort Macleod .....	8,379.00	4,311	1,855,008.00	4.517	2,500
	24,493.00	443,003	5,334,123.00		4,806
<b>Magrath M.H.D. No. 29</b>					
County Warner No. 5 .....	1,722.62	29,439.20	214,840.00	8	2,800
Cardston No. 6 .....	23,570.25	233,776.96	2,939,615.00	8	
Town of Magrath .....	7,789.63	1,300	971,500.00	8	1,400
	33,082.50	264,505	4,125,955.00		4,200
<b>Mannville M.H.D. No. 1</b>					
M.D. Minburn No. 72 .....	15,357.81	273,289	2,792,330.00	5.5	2,027
Free Hospitalization .....	1,643.00				
Special Services .....	960.00				
Mannville .....	2,842.07	240	616,740.00	5.5	526
Special Services .....	180.00				
Minburn .....	903.04	102	164,190.00	5.5	202
Special Services .....	80.00				
	21,965.92	273,631	3,473,260.00		2,755
<b>Mayerthorpe M.H.D. No. 38</b>					
M.D. Lac St. Anne No. 93 .....	27,668.00	242,400	1,627,519.00	17	2,950
Twp. 57-6-W5th .....	1,866.00	19,000	109,800.00		100
L.I.D. No. 109 .....	2,490.00	31,375	146,460.00	17	240
Mayerthorpe .....	6,224.00	115	366,110.00	17	650
	38,248.00	292,890	2,249,889.00		3,940
<b>Myrnam M.H.D. No. 23</b>					
M.D. Eagle No. 81, Hospital ....	16,112.00	165,209.63	1,611,195.00	10	2,255
Medical .....	6,445.00			4	
M.D. St. Paul No. 86, Hospital .....	313.00	9,070.35	31,340.00	10	100
Medical .....	125.00			4	
Myrnam, Hospital .....	2,965.00		296,590.00	10	400
Medical .....	1,186.00			4	
	27,146.00	174,360	1,939,125.00		2,755



TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Olds M.H.D. No. 26</b>					
M.D. Mountain View .....	23,284.00	276,180	3,880,618.00	6	5,500
M.D. of Kneehill .....	3,765.00	7,680	627,560.00	6	500
L.I.D. No. 50 .....	1,094.00	32,914	182,435.00	6	
Town of Olds .....	12,064.00	608	2,010,670.00	6	1,748
Village of Sundre .....	1,656.00	235	275,903.00	6	475
	41,863.00	317,617	6,977,186.00		8,223
<b>Oyen M.H.D. No. 35</b>					
Acadia Valley .....	1,564.00	55,849	229,970.00	6.8	160
Special Areas .....	10,963.00	652,221	1,612,148.00	6.8	1,666
Village of Oyen .....	2,665.00	217	398,513.00	6.8	560
	15,192.00	708,287	2,240,631.00		2,386
<b>Peace River M.H.D. No. 21</b>					
M.D. of Peace River No. 135 ..	4,916.00	175,986	446,915.00	11	1,736
M.D. of Smoky River .....	886.00	11,007	80,500.00	11	
L.I.D. No. 131 .....	10,897.00	186,244	990,615.00	11	1,617
L.I.D. No. 138 .....	3,632.00	55,880	330,170.00	11	444
Town of Peace River .....	17,291.00		1,571,955.00	11	2,300
	37,622.00	429,117	3,420,155.00		6,097
<b>Ponoka M.H.D. No. 37</b>					
Ponoka County No. 3 .....	45,128.00	365,799	5,708,790.00	3	5,600
Camrose No. 63 .....	52.00	680	6,600.00		
Town of Ponoka .....	21,600.00	1,399	2,740,104.00	8	764
	66,840.00	367,878	8,455,494.00		8,844
<b>Provost M.H.D. No. 12</b>					
M.D. of Provost No. 52 .....	27,684.00	354,799	3,075,960.00	9	1,950
M.D. of Wainwright No. 61 .....	2,370.00	46,975	263,420.00	9	284
S.A. No. 3 .....	5,730.00	147,019	636,673.00	9	600
Town of Provost .....	6,841.00	398	760,152.00	9	834
	42,625.00	549,191	4,736,205.00		3,668
<b>Raymond M.H.D. No. 31</b>					
Warner County .....	9,640.00	161,632.2	2,794,000.00	3.45	(
Cardston M.D. No. 61 .....	1,468.00	27,623.8	425,495.00	3.45	( 2,088
Lethbridge M.D. No. 25 .....	96.00	1,846.6	28,000.00	3.45	(
Town of Raymond .....	6,500.00		1,587,607.00	4.1	* 2,450
Village of Stirling .....	910.00		211,345.00	4.3	* 600
	18,614.00	191,120.7	5,046,447.00		5,138
* Estimated.					
<b>Red Deer M.H.D. No. 15</b>					
M.D. No. 55 .....	38,057.00	255,284	3,987,846.00	10.5	* 5,000
M.D. No. 64 .....	7,664.00	64,376	801,846.00	10.5	* 1,300
City of Red Deer .....	84,167.00	2,132	8,815,242.00	10.5	* 10,000
	129,888.00	321,792	13,604,968.00		16,300
* Estimated.					
<b>Rimbey M.H.D. No. 52</b>					
County of Ponoka .....	31,079.00		2,825,405.00	11	3,100
M.D. of Lacombe No. 64 .....	1,490.00		135,550.00	11	
L.I.D. No. 65 .....	710.00		64,570.00	11	
L.I.D. No. 68 .....	74.00		6,770.00	11	
Town of Rimbey .....	8,050.00		670,853.00	12	757
	41,403.00	164,036	3,703,148.00		3,875
<b>Rocky Mtn. House M.H.D. No. 49</b>					
M.D. of Raven No. 57 .....	3,918.00	68,551	390,990.00	10	1,000
L.I.D. No. 65 .....	14,522.00	220,492	1,452,985.00	10	3,000
Rocky Mountain House .....	8,432.00	165	839,030.00	10.5	1,450
Village of Caroline .....	1,332.00	65	133,279.00	10	320
	28,211.00	289,273	2,816,284.00		5,770

TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Spirit River M.H.D. No. 60</b>					
M.D. Spirit River No. 133	6,401.00	135,530	1,280,345.00	5	1,850
L.I.D. No. 132	3,755.00	122,101	751,178.00	5	900
L.I.D. No. 134	4,974.00	220,598	994,990.00	5	2,000
Town of Spirit River	2,731.00		546,370.00	5	760
Village of Rycroft	1,668.00		333,780.00	5	420
	19,529.00	478,229	3,906,663.00		5,930
<b>Stettler M.H.D. No. 20</b>					
M.D. Stettler No. 54	65,585.00	797,487	9,798,545.00	6.69	5,542
M.D. Camrose No. 63	4,019.00	74,127	600,440.00	6.69	950
M.D. Lacmobe No. 64	544.00		81,310.00	6.69	
Town of Stettler	17,986.00		2,687,108.00	6.69	3,100
Village of Big Valley	1,903.00		284,410.00	6.69	401
Donalda	1,756.00		262,300.00	6.69	252
Gadsby	820.00		122,511.00	6.69	106
Botha	707.00		105,610.00	6.69	100
	93,320.00	871,614	13,942,234.00		10,451
<b>St. Paul M.H.D. No. 36</b>					
M.D. of St. Paul No. 86	25,983.00	372,834	3,247,885.00	8	7,600
Town of St. Paul	11,831.50		1,478,935.00	8	1,800
	37,814.50	372,834	4,726,820.00		9,400
<b>Taber M.H.D. No. 27</b>					
M.D. of Taber No. 14	21,569.00		3,081,263.00	7	3,507
M.D. Forty Mile No. 2	395.00		56,480.00	7	16
County of Warner No. 5	503.00		71,930.00	7	12
M.D. of Lethbridge No. 25	6.16		880.00	7	
Town of Taber	35,429.10		5,061,300.00	7	3,700
Village of Grassy Lake	1,012.00		144,600.00	7	150
	58,914.26	431,059	8,416,453.00		7,375
<b>Three Hills M.H.D. No. 45</b>					
M.D. of Kneehill	30,450.00	239,380	3,950,830.00	7.73	2,401
Town of Three Hills	8,914.00	211	1,153,058.00	7.73	986
	39,454.00	239,591	5,103,888.00		3,387
<b>Tofield M.H.D. No. 47</b>					
M.D. of Beaver No. 73	24,000.00	219,977	2,962,130.00	8.10	2,597
Town of Tofield	5,000.00		704,000.00	7.1	* 700
	29,000.00	219,977	3,666,130.00		3,297
* Estimated.					
<b>Trochu M.H.D. No. 56</b>					
M.D. of Kneehill No. 84	6,785.00	156,582	2,262,300.00	3	1,400
M.D. of Red Deer No. 55	291.00	2,180	97,070.00	3	110
Village of Trochu	2,160.00	54	719,856.00		682
	9,236.00	158,816	3,079,226.00		2,192
<b>Turner Valley M.H.D. No. 66</b>					
M.D. of Sheep River No. 31	22,768.00	633,600	4,949,555.00	4.6	1,850
Village of Black Diamond	2,855.00		627,220.00	4.6	799
Turner Valley	1,501.00		326,297.00	4.6	1,156
	27,154.00	633,600	5,903,072.00		3,805
<b>Two Hills M.H.D. No. 42</b>					
M.D. of Eagle No. 81	24,016.00	202,518	1,715,435.00	14	3,295
M.D. of St. Paul	3,544.00	32,761	253,200.00	14	126
Villages	6,450.00	74	460,697.00	14	629
	34,010.00	235,353	2,429,332.00		4,524
<b>Vegreville M.H.D. No. 34</b>					
M.D. of Eagle No. 81	16,512.00	230,740	4,127,775.00	4	3,275
M.D. of Beaver No. 73	6,916.00	131,866	1,729,430.00	4	1,350
M.D. of Minburn	424.00	40	105,690.00	4	129
Town of Vegreville	10,584.00	1,280	2,646,385.00	4	2,505
Village of Lavoy	456.00	40	138,950.00	4	118
	34,892.00	372,966	8,748,270.00		7,377

TABLE No. 14—Continued

Contributing Units	Requisitions	Acreage	Assessed Value	Mill Rate	Population
<b>Vermilion M.H.D. No. 2</b>					
M.D. of Eagle No. 81 .....	2,065.00	42,836	427,710.00	4.8	665
M.D. of Minburn No. 72 .....	6,105.00	121,655	1,264,160.00	4.8	800
M.D. Vermilion River No. 71 .....	13,630.00	247,133	2,822,130.00	4.8	3,300
Town of Vermilion .....	10,957.00	1,222	2,055,770.00	5.3	2,200
Village of Derwent .....	1,031.00	37	213,483.00	4.8	268
	<u>33,788.00</u>	<u>412,883</u>	<u>6,783,253.00</u>		<u>7,233</u>
<b>Viking M.H.D. No. 10</b>					
M.D. of Minburn No. 72 .....	19,838.00	179,292	1,776,530.00	11.17	1,300
M.D. of Beaver No. 73 .....	18,180.00	187,250	1,628,120.00	11.17	1,600
M.D. of Flagstaff No. 62 .....	10,570.00	106,296	946,810.00	11.17	850
Town of Viking .....	7,412.00	255	664,110.00	11.17	725
	<u>56,000.00</u>	<u>473,093</u>	<u>5,015,570.00</u>		<u>4,475</u>
<b>Vu'can M.H.D. No. 19</b>					
County No. 2, Vulcan .....	30,386.00	603,599	7,890,715.00	3.85	3,855
M.D. of Argyle .....	60.00	1,451	15,620.00	3.85	40
Town of Vulcan .....	4,554.00		1,182,660.00	3.85	1,200
	<u>35,000.00</u>	<u>605,050</u>	<u>9,088,995.00</u>		<u>5,095</u>
<b>Wainwright M.H.D. No. 17</b>					
M.D. of Wainwright No. 61 .....	29,735.40	638,322	4,574,678.00	6.5	6,484
M.D. of Minburn No. 72 .....	674.18	8,278	103,720.00	6.5	80
Town of Wainwright .....	12,361.66	640	2,247,575.00	5.5	2,200
	<u>42,846.06</u>	<u>649,217</u>	<u>6,937,483.00</u>		<u>8,764</u>
<b>Willingdon M.H.D. No. 64</b>					
M.D. of Eagle .....	8,916.00	127,780	1,783,210.00	5	2,050
Town of Willingdon .....	1,868.00		373,680.00	5	500
M.D. of Vermilion River .....	74.82	1,977	11,510.00	6.5	
Hairy Hill .....	968.00		193,503.00	5	205
	<u>11,752.00</u>	<u>128,705</u>	<u>2,350,393.00</u>		<u>2,800</u>



## NURSE EDUCATION PROGRAM

The program of paying a general hospital that operates a school of nursing, a sum of \$300.00 for each nurse who has been educated in and graduated from its school of nursing, and a sum of \$100.00 for each nurse graduated from a school of nursing in a provincial mental hospital, and who received, prior to graduation, approximately two years' education in the school of nursing of a general hospital, was continued in 1954 under the authority of The Hospitalization and Treatment Services Act.

During 1954, a total of \$117,900.00 was expended on behalf of 391 graduates at \$300.00, and six graduates at \$100.00 each. This makes a total of 397 nurses graduated from the 11 schools of nursing operated by the general hospitals in the Province, as against 394 in 1953.

## SCHOOL FOR NURSING AIDES, CALGARY, ALBERTA

In 1946, a school was established in Calgary for the training of nursing aides to help alleviate the shortage of nurses. Since that time the school has trained 1,425 women. The number of aides certified in 1954 was 256, compared with 204 in 1953.

The number of nursing aides employed in Alberta as of December 31st, 1954, was 747. Those working within the Province were distributed between general hospitals, sanatoria, mental hospitals, Indian hospitals, and private homes.

## HOSPITAL CONSTRUCTION

The following hospitals completed additions in the calendar year 1954, for a total net increase in capacity of 161 beds and nine bassinets:

	Net Increase	
	Beds	Bassinets
Camrose, Rosehaven (No. 1) .....	56	—
Drumheller, Municipal .....	29	18
Ft. Vermilion, St. Theresa .....	19	—
Galahad, St. Joseph's .....	25	9
Stettler, Chronic .....	32	—

Data regarding hospital construction projects is recorded on a fiscal year basis. During 1954-55 the total amount expended by the Province for hospital construction was \$641,548.50.

New projects started in 1954-55 were as follows:

- Barrhead, St. Joseph's
- Bonnyville, St. Louis
- Edmonton, St. Joseph's Chronic
- Edmonton, University of Alberta
- Lac La Biche, St. Catherine's
- Manning, Municipal
- Myrnam, Municipal
- Vermilion, Municipal

## CONTROL OF OPERATIVE PROCEDURES IN HOSPITALS

In all cases of death within 30 days following operation, a full report must be forwarded to this Division for review. Records of all cases of death within 72 hours following operation are forwarded then to the Alberta College of Physicians and Surgeons, together with records of such other cases where further investigation is deemed necessary or advisable.

This Division also reviews a certain proportion of the case records in instances where a curettage has been performed.

## Nursing Aides Training

J. F. FERGUSON, *Registrar Consultant*

### *History*

The School for Nursing Aides, Calgary, has been offering a training in "Vocational Nursing" since 1945. This school is operated by the Department of Public Health and the Department of Education with assistance from the Federal Government. This "Act to Provide for the Licensing of Nursing Aides in Alberta" was passed in March, 1947.

### *Purpose of the Training*

This training program is designed to assist women who are not able to meet the entrance requirements for Professional Schools of Nursing in Alberta but who are willing, honest, sincere, tolerant, and are interested in learning how to care for those who are ill.

They are taught to give supervised nursing care in hospitals and in private homes.

### *Entrance Requirements*

Grade IX education, age 17½ years at time of entrance, physically fit and with good references, medical examination to be done by a doctor of the applicant's choice and at the applicant's expense. Smallpox vaccination must have been done within three years of entrance or repeated if possible. Inoculations for typhoid and diphtheria given after enrollment.

### *Classes Enrolled*

Every five weeks, January 31, March 7, April 11, May 16, June 20, July 25, August 29, October 3, November 7, December 12, 1955.

### *Allowances*

These are given to the student by the Government. Students may receive \$10.50 to \$19.50 per week, depending upon the experience and/or responsibilities of the applicant. Transportation is supplied to and from the hospital at time of going for period of hospital experience under supervision. During hospital experience, full maintenance is supplied by the hospital and a deduction is made monthly from the allowance for maintenance provided.

In case of an accident on duty during training, the student is protected under the "Workman's Compensation Act".

### *Uniforms*

These are loaned from the day of entry and laundered by the school or hospital. Students supply their own shoes and hose.

### *Tuition*

None to be paid.

### *Equipment Needed*

Clothes so that the student is able to dress for the weather. There are a few special articles needed such as name tapes,



bandage scissors, text books, etc. Full details available upon request.

### *Course Outline*

Length of course is 40 weeks, divided into:

1. 19 weeks of instruction at the school in Calgary.
2. 20 weeks of supervised experience at the hospitals.
3. 1 week of final review at the school.

Classes at the school are six hours per day for five days per week. Hospital experience is arranged for by the school.

### *Subjects To Be Studied*

Nursing Ethics  
 Personal Care and Hygiene  
 Anatomy and Physiology  
 Bandaging  
 Care of Mother and Child  
 Diet in Disease  
 Child Care and Development  
 Community Health and Communicable Diseases  
 Common Diseases  
 Health and Recreation  
 Nursing Procedures

Upon successful completion of the course, a certificate, a cap, and a "Nursing Aide" pin are presented from the Department of Public Health, and the certified nursing aide becomes eligible to receive an annual license to work as an "Alberta Nursing Aide".

Recent indications are that the demand for trained nursing aides is great, and it would appear to be several years before we will be able to meet the demand.

Statistics regarding the school effective January, 1955:

#### GRADUATES

1946— 10	1949—117	1952—216
1947— 41	1950—159	1953—208
1948—160	1951—247	1954—256
		1955— 25 to date

Certified nursing aides are employed in 93 hospitals in the Province of Alberta.

## Civil Service Nurse

K. E. JORGENSEN, R.N.

I am sure we must all be quite aware of the fact that the trend of today, as never before, is new developments, new and quicker growth, and new and more challenges.

Likewise, there are new departments and new branches in the Government, there are more civil servants; therefore, our service must increase.

It is impossible to state in figures how much health education has been done from this branch during the past year, but due to our constant contact with the public we try to take every opportunity we can to pass on information that may help prevent or control various conditions. Much, too, has been done by means of the telephone, although, to date, we have not kept a record of the phone calls.

For the year of 1954 there were:

Office calls .....	3,253
Home calls .....	404
Compensation cases (reported) .....	94
Telephone calls .....	not recorded

## Division of Arthritis Services

R. K. THOMSON, M.D., *Director*

The Division of Arthritis, Department of Public Health — with Clinics in Provincial Building No. 1, Edmonton, and Holy Cross Hospital, Calgary — continues to accept patients up to the age of 25 years.

Since the Clinics opened in December, 1949, a total of 241 patients have been referred for examination and investigation, at the request of their family physician. Of this number, 122 patients were found to be definitely suffering from Rheumatoid Arthritis. As of December 31st, 1954, 16 of these have become ineligible for treatment due to having reached their twenty-fifth birthday. This means that the actual number of patients under active treatment with Rheumatoid Arthritis is 106. Of this number, there were 21 new cases in 1954.

For the second year in a row, the total hospital days has dropped, this in spite of an increase in the number of patients being cared for by the Division. Thirteen of the 21 new cases seen in 1954 required some period of hospitalization.

A tremendous saving has been brought about by virtue of the Provincial Government buying drugs in bulk lot and having them distributed from the Edmonton Clinic on the authority of the Director.

A statistical compilation of cases treated in 1954 follows.

### STATISTICAL COMPILATION OF CASES TREATED IN 1954

	Edmonton	Calgary	Total
Rheumatoid Arthritis Cases in 1954 (new) .....	10	11	21
Repeat Examinations made .....	82	100	182
Initial Examinations made .....	14	15	29
Total Rheumatoid Arthritis Cases under Division ..	71	35	106
Hospital Days .....	477	94	571
Physiotherapy Treatments:			
(a) Hospital patients .....	144	14	158
(b) Out-patients .....	30	120	150
Injections .....	28	119	147
Office Visits .....	5	23	28
Total Treatment Days, January 1st to December 31st, 1954:			
Hospital Days .....			571
Physiotherapy .....			308
Clinic and Office Visits .....			239
Total Treatment Days .....			<u>1,118</u>



## Division of Cerebral Palsy Clinics

F. G. DAY, M.D., *Director*

For the 12 months of 1954 both the Calgary and Edmonton Cerebral Palsy Clinics have offered uninterrupted service for the diagnosis and treatment of the cerebral palsied. No provision has been made for in-patients in either Clinic, and this continues to remain an excellent rule.

### *Calgary Clinic*

This Clinic has continued to operate under the direction of Dr. T. A. Richardson with a half morning weekly diagnostic clinic and a daily out-patient clinic. The Calgary Clinic has been seriously handicapped due to lack of staff.

Their daily average attendance has remained at 16. They have admitted 27 new patients to clinic therapy and have handled 26 re-admissions, a total of 53 patients. The physio-therapist gave 1,800 treatments, and the occupational therapist a similar 1,800 treatments. The speech therapist provided 1,700 individual speech clinics to patients. There were a total of 28 cerebral palsy students who attended school.

At the Examination Clinics a total of 266 examinations were done, of which 50 were new cases. Of these new cases, eight were not cerebral palsy, and 20 were too young to make a certain diagnosis.

A total of 163 braces and adjustments to braces were performed through the Calgary Artificial Limb Factory.

Three lectures were given on Cerebral Palsy in various locations by members of the Clinic staff. Twenty-five student nurses from the General Hospital, and five nurses from the High River Health Unit visited the Clinic and were given instructions in the diagnosis and treatment of Cerebral Palsy.

A dormitory is operated by the Southern Alberta Cerebral Palsy Association now who pay the rent, utilities, the food, the furnishings and staff. It can accommodate eight country children. There were actually 15 different cases boarded in the dormitory during the past year. The parents are asked to contribute \$50.00 per month towards the child's upkeep.

It is estimated that of the cases which were treated in the Clinic, 38 showed considerable improvement, whereas only four showed little to no improvement.

### *Edmonton Clinic*

The Edmonton Clinic has been very successful in 1954, wherein 82 Cerebral Palsy cases have benefited from clinic therapy on rotating basis of varying length of time, depending on the physical and mental disabilities of the individual case. Of these, 27 were new patients and 55 were re-admissions. The average daily attendance, four times a week throughout the year, has been 25, and approximately 11 once or twice a week.

The physiotherapist has given 2,600 treatments during the year, after conducting these clinics for the past four years. The year 1954 has certainly left no doubt in our minds that

very remarkable improvement was noted in many of the 63 cases handled by the physiotherapist.

The progress is hard to estimate, but our figures show that seven children commenced sitting and standing, 10 commenced learning how to walk, eight commenced walking on crutches, and three of these were trained so that they can go to regular school and climb stairs, two commenced walking with the use of canes, and 31 of the total 63 have improved their walking greatly. Five of our cases showed minor improvements only.

The occupational therapist treated 77 children, performing 2,439 treatments in all. Her work has consisted of teaching these children feeding skills. The majority of the children worked at mastering the various dressing skills and self-care under her direction. Improvement was noted in all of the cases well beyond the rate one could expect if no therapy had been given.

The speech therapist held individual speech clinics on 1,886 occasions. The following is a report of the progress noted and the work done:

1. The experimental use of the Monahan Respirator in an effort to improve breathing patterns of certain athetoid cases was done on four children.
2. Hearing aids were advised, and are being used in three cases.
3. Five children with aphasia and no speech at all were treated with good progress. Sounds or words are now used by the whole five of these children.
4. In three cases there was no speech, but this was mainly due to muscular difficulty. Here, good progress was noted in only one. In the other two the progress was very minor, if at all.
5. Where speech and language difficulty was present, plus some muscular difficulty, two cases were treated both with good progress.
6. In one case no speech was present due to deafness, and this child was directed to the Tracy Clinic in Los Angeles where a correspondence course has been started for pre-school age. Progress is noted in awareness of speech in this particular child.
7. Where speech and language difficulty was due to defective hearing, plus poor muscular control, three cases were treated. Two are now using hearing aids. Good progress is noted in the entire three.
8. Where speech and language difficulty was present, but no muscular difficulty of speech organs was noted, three cases were treated. One showed good progress, two showed slight progress only.
9. Where speech difficulty in the main was due to muscular difficulty, we treated 20. Good progress was noted in eight, fair progress in eight, and slight progress only in four.
10. Where congenital auditory, imperception, plus mental de-

iciency were present, we treated one case. This child is not likely to benefit from treatments.

All parents of children leaving Clinic for periods are seen and supplied with exercises, and advised on procedures to carry on the speech therapy at home.

The school room has had a daily attendance of 40 pupils, while receiving intensive therapy. Although formerly called grade I and II, these pupils are very limited in ability to participate and express themselves. Twenty-eight have shown ability to co-operate, persistence and definite progress. Twelve have merited instructional testing only. Total clinic educational treatments were 2,386 during the year. The advanced class includes 11 pupils, seven in grade I, two in grade II, and two in grade III. These pupils have benefited from correspondence courses, and instructions in their homes for some of the time. They continue to receive therapy as needed, although having progressed to standard grade work.

Out-patients attending day school and receiving therapy totalled 24. Of these, 18 are well adjusted socially and academically to the routine of day school, but six are attending part-time or are in opportunity classes.

In Examining Clinic 63 new cases were examined, and of these, 33 were diagnosed as Cerebral Palsy and appropriate steps were made for their treatment either immediately or in the future. Nine are pending further investigation. They are in the main too young to make a definite diagnosis at the present time. There were 325 re-examinations for evaluation, instructions, or orthopaedic corrections.

Sixty-eight out-patients have been on a home-management program. Of these, 27 are still too young for a full program in Clinic. Some have been seen weekly, or monthly. The parents have been re-instructed, and practically all these children have shown good progress. Four cases are too badly handicapped, six were referred to Co-ordinator of Disabled Persons and Rehabilitation for assistance in job placement or Canadian Vocational Training. Fifteen cases were seen for orthopaedic corrections or appliances. During the past year eight cases had been admitted to the Provincial Training School at Red Deer as being too mentally afflicted for any continuation of therapy, and four additional cases have been advised to submit applications for future admission. I feel the parents now are commencing to trust the Clinic, and to accept our advice when we suggest that they submit their application to Red Deer.

**THE BRACESHOP:** One hundred and eighty-nine braces were either fitted or adjusted. Twelve children were braced for the first time. Out of these the walking of eight was greatly improved. The remaining four were able to commence learning how to stand and finally commence walking. Night braces were found to be of great value in the majority of the patients, and consequently were used in many instances.

**AUXILIARY SERVICES:** The Reception Centre continues to be operated by the Edmonton Southside Kiwanis Club, where the children get their meals. They maintain the transportation,



provided by the Associated Canadian Travellers. The trucks were driven a total of 29,000 miles during the year. A kindergarten was held in the afternoons for eight months, with an average daily attendance of seven children. It was run largely by volunteers. The average weekly assistance from volunteers in the Reception Centre was 24. These were made available from all the various clubs throughout the town.

**INSTRUCTIONS:** Thirty-five student nurses from the General Hospital and the Misericordia, as well as 21 public health nurses from the University of Alberta, attended the Clinic for instruction and orientation in Cerebral Palsy. The film "A Day in the Life of the Cerebral Palsied", a tour of the Clinic, and lectures by members of the staff were given to a group of second and third year student nurses from the General Hospital, as well as 22 student nurses from the Archer Memorial Hospital in Lamont.

Lectures were given and the film was shown to the student nurses at the Royal Alexandra Hospital and the Misericordia Hospital.

Lectures and demonstrations using cerebral palsied cases were given to the third and fourth year medical students at the University. In addition to the above, lectures have been given by different members of the staff to the Edmonton Cerebral Palsy Association, Teachers Convention, Home and School Association, and members of the Junior League.

It becomes increasingly apparent that the backlog in Cerebral Palsy in the Province of Alberta of treatable cases is much greater than we had anticipated. It appears, too, that the birth rate is at least keeping up to what we had anticipated, if not exceeding it.

#### STATISTICAL SUMMARY

CASES ON THE REGISTER	Edmonton	Calgary	Total
Cases Receiving In-Patient Therapy .....	82	53	135
Cases on Home Management .....	68	-	68
Physiotherapy Treatments .....	2,600	1,800	4,400
Occupational Therapy .....	2,439	1,800	4,239
Speech Therapy .....	1,886	1,700	3,586
Attending School at Clinic .....	40	28	68
Patients Examined: .....	388	266	654
For Diagnosis .....	63	50	113
Review Cases .....	325	216	541
Admitted to Clinic: .....	82	53	135
New Patients .....	27	27	54
Re-admissions .....	55	26	81
Results from Treatment:			
Little improvement .....	5	4	9
Moderate improvement .....	24	—	24
Marked improvement .....	34	38	72

## Division of Tuberculosis Control

G. R. DAVISON, M.D., *Director*

The programme of this Division toward control and eradication of tuberculosis was continued in 1954 with emphasis being placed on pin-pointing the campaign in the areas where mortality rates and incidence of disease are the highest.

As this is written Alberta is preparing to celebrate the golden jubilee of the formation of the Province. Much will be written about the good times and bad times. Much more will be written concerning the enormous progress of the past 50 years. There is a certain analogy between the history of the Province and that of the anti-tuberculosis campaign. As the population of the Province increased, so did measures to combat diseases. For many years health problems were administered by various departments of government, and as the need arose Ministries of Health were set up.

The history of the campaign against tuberculosis shows the same broadening and advance. Before the formation of government health departments, public-spirited citizens developed societies, the aims and objects of which were to reduce the mortality and morbidity from tuberculosis by treatment and prevention of the disease. Sanatoria were built for treatment and segregation. In 1900 there were 100 treatment beds in Canada, and now there are 18,500. Clinics were opened and expanded so that at the present time diagnostic clinic services are available to everyone. Mobile X-ray equipment was sent out into the highways and byways to search out the cases of the disease. An educational programme has been carried on throughout the years by government and voluntary organizations. The result of this continued campaign in Canada is that the mortality rate has very dramatically declined from 200 deaths per 100,000 in 1900, to 14 by 1953. The death rate for the Province of Alberta in 1953 was 6.8. The rapidly falling death rate has resulted in a feeling of complacency. Many people feel that the danger is past. Consequently, the hot war against tuberculosis could become a cold war. The danger is far from past. The challenge is still with us. The death rate for 1954 among the white population of Alberta will be higher than in 1953. The death rate among the Indians will be less, according to available figures. Then, too, the challenge must be considered from the standpoint of the number of cases living rather than on the basis of the number who have died. There were 121 more cases discovered in 1954.

This is no time for the relaxation of our effort to bring tuberculosis under complete control. Unless we continue in our endeavors we run the risk of loss of much that has been gained in the last several decades.

### *Diagnostic Service*

As in previous years, clinics operated at the Aberhart Memorial and Baker Memorial Sanatoria. Clinics were also held at intervals in other large centres. A total of 13,255 examinations were carried out. This was an increase of 865 over 1953.

One mobile unit was operated for over half the year and X-rayed 43,175, in spite of a very wet season. Since the mobile

units have been in use over 1,000,000 chest films have been taken. 15,733 films from outlying hospitals all over the Province were interpreted by the staff of the Tuberculosis Division.

### *Classification*

Nine hundred and seventy-eight new cases of tuberculosis (excluding Indians).

Active pulmonary .....	326
Inactive pulmonary .....	576
Active non-pulmonary .....	68
Inactive non-pulmonary .....	8

With the assistance and co-operation of the Health Units, district and municipal nurses, a programme of tuberculin skin testing is still being pressed with gratifying results. Grateful acknowledgement is made of the assistance and co-operation of all those concerned.

The Indian Health Services branch of the Department of National Health and Welfare continued its very active programme during 1954. The detailed report of the work done by this Department is not yet available. A very amicable relationship exists between the Indian Health Services and the Tuberculosis Division which makes for close co-operation. Grateful acknowledgement is made of the services rendered to this Division of the Health Services survey teams in the hinterland of the Province.

### *Treatment Services*

On April 1st, 1954, the name of the Central Alberta Sanatorium, Calgary, was changed to the Baker Memorial Sanatorium in tribute to the memory of its first medical superintendent, the late Dr. Albert H. Baker. Dr. Baker was outstanding in the field of tuberculosis. It was an honor to have been associated with him for some 20 years.

The total number of cases treated in both sanatoria was 1,186, which was 30 more than in 1953. Of the total number, 691 were admitted during the year, an increase of 47 over the previous year. It can, therefore, be realized that the number of cases of disease requiring treatment is not decreasing as rapidly as the death rate. The waiting list at the Baker Memorial Sanatorium disappeared, but persisted at the Aberhart Memorial Sanatorium in Edmonton. This exemplifies the downward trend in the incidence of disease in the older settled areas of the Province. It also points up the fact that the reservoir of infectious cases, particularly in the northern section, is far from disappearing.

By the use of the antimicrobial drugs it was possible for some cases to be discharged sooner than would otherwise have been advisable. The average stay in hospital was 259 days, which was 34 days less than in 1953. It is the consensus of tuberculosis workers throughout the English speaking world that cases of tuberculosis should be given the benefit of sanatorium care until the disease is arrested before home treatment



should even be considered. Prescribing of drugs to cases in their homes without previous sanatorium investigation, treatment, and observation, is dangerous.

### *Affiliation Course in Tuberculosis Nursing*

Courses of instruction at the Aberhart and Baker Memorial Sanatoria in affiliation with the training schools of the Province were continued in 1954. The course is of definite educational value from the standpoint of the broad subject of tuberculosis. Then, too, with the decline of other contagious diseases these courses give training in the nursing of infectious disease.

### *Medical Students*

Members of the fourth year class of the Medical Faculty of the University attended lectures and clinics at the Aberhart Memorial Sanatorium. In the main, diagnosis of chest diseases is stressed as well as tuberculosis. During the summer vacation some medical students who have finished the third year act as internes.

### *Educational Programme*

In the main, this consists of the teaching of all school grades, both elementary and high school. It also provides teaching of commercial courses and vocational classes. In this way children carry on with their schooling as they would if at home and do not lose time or grades. Those taking commercial and other courses are fitting themselves for rehabilitation after discharge from hospital. This programme has been in operation for 14 years and has been very worth while. It is the consensus of industry that rehabilitated patients make very satisfactory employees and absenteeism among them is not a problem. Sincerest thanks are extended to all employers who have so readily co-operated in the plan. Grateful acknowledgement is also made of the assistance rendered by the Alberta Tuberculosis Association. This association supplies the services of rehabilitation officers in Edmonton and Calgary, as well as financial assistance to those ex-patients who are continuing their training. The association also supplies one of the three full-time teachers at the Aberhart Memorial Sanatorium.

Occupational therapists employed by the Tuberculosis Division are doing marvelous work at both hospitals. In the main this programme is carried on from the standpoint of education in an endeavor to assess the aptitudes and capabilities of the student with a view to his rehabilitation.

### *Building Programme*

The extension to the Nurses' Home at the Baker Memorial Sanatorium was completed. Two residences for staff physicians were completed and are now being enjoyed by the families concerned. All the medical men but one live in departmental houses on or near the sanatorium property. Two houses for members of the Department of Public Works employees were also finished and occupied during 1954, and another is nearing

completion. The sanatorium proper has been in use for 34 years. All the infirmaries are of frame and stucco construction.

Fire fighting teams are well organized and active. It is hoped that lightning rods will be installed in the not too far distant future.

The Aberhart Memorial Sanatorium, being of steel, tile and brick construction, will still look new many years hence. Repairs and replacement should always be of minor importance because in the planning, these two items were always kept in mind.

#### DIAGNOSTIC CLINIC

	No.	New Cases of		Total
	Sessions	Tub.	Active	Examinations
STATIONARY CLINICS				
Baker Memorial Sanatorium .....	98	17	5	4,287
Aberhart Memorial Sanatorium .....	104	91	13	4,893
Calgary .....	49	1	---	234
Camrose .....	5	1	1	152
Drumheller .....	11	---	---	104
Lethbridge .....	11	5	1	672
Medicine Hat .....	12	---	---	330
Red Deer .....	6	---	---	253
Vegreville .....	5	3	---	102
Total .....	301	118	20	11,027
OTHER CLINICS				
Eckville .....	2	---	---	17
*Miscellaneous .....	---	74	---	4,364
Total .....	2	74	---	4,381
TOTAL ALL CLINICS .....	303	192	20	15,408

In addition to the above 212 newly discovered cases of active tuberculosis there were also discovered 496 cases of inactive tuberculosis.

#### TUBERCULIN TESTING AND X-RAY SURVEYS

(Conducted by Public Health Nurses, Teachers, Business Firms, Hospitals, etc.)

	No. Tbn. Tested	No. X-rayed
Health Units .....	---	467
Red Cross Blood Transfusion Service .....	7	55
Nursing Aide Student .....	373	546
Metropolitan Life Insurance Co., Calgary .....	10	32
Canadian Industries Ltd. ....	---	4
School Survey Grade X, Calgary .....	1,199	91
School Survey, Grade I .....	9,954	134
Canadian Oil Co. ....	---	5
Youville Convent .....	---	23
Medical Students .....	---	425
Provincial Laboratory Staff .....	---	49
Public Health Nursing Staff .....	---	3
Victorian Order of Nurses .....	1	6
University Students .....	1,935	262
Provincial Training School Staff, Red Deer .....	---	33
T. Eaton Co., Edmonton .....	960	345
Total .....	14,439	2,480

Total number known to have been given service—16,696, i.e., number rayed plus number tuberculin tested but not rayed.

\* Films sent in from various points and paid for by the Division.

## DEPARTMENT OF PUBLIC HEALTH

## MOBILE UNIT SURVEYS

	Number X-rayed		Number X-rayed
Alexo .....	86	Ferintosh .....	444
Alix .....	624	Innisfail .....	1,827
Banff .....	1,450	Lacombe .....	3,456
Banff Springs Hotel .....	245	Lake Louise .....	388
Bashaw .....	971	Leslieville .....	459
Bawlf .....	1,518	Mirror .....	700
Bentley .....	1,260	Montgomery .....	1,890
Bowden .....	179	New Norway .....	737
Bowness .....	2,393	Nordegg .....	357
Canmore .....	798	Penhold .....	378
Caroline .....	618	Pine Lake .....	173
Clive .....	673	Red Deer .....	7,772
Daysland .....	1,081	Red Deer Provincial Training School .....	768
Delburne .....	1,156	Rimbey .....	2,212
Eckville .....	1,613	Rocky Mountain House .....	1,760
Edberg .....	736	Round Hill .....	1,546
Elnora .....	655	Sylvan Lake .....	1,117
Exshaw .....	332	Spruce View .....	803
		Total .....	43,175

## SUMMARY MOBILE UNIT SURVEYS

Number X-rayed .....	43,175
Probable tuberculosis active .....	( 6 previously discovered) 12
Probable tuberculosis inactive .....	(102 previously discovered) 221
Further examination requested .....	225
Non-tuberculous chest condition .....	246
Pleurisy active .....	1
Pleurisy inactive .....	81
No disease .....	42,373

## SUMMARY CLINICS AND SURVEYS

	Total Number Examinations
Stationary Clinics .....	11,027
Other Clinics .....	4,381
Surveys (all types) .....	16,696
Mobile Unit .....	43,175
Indians, Whites and Half Breeds (work done by Department of National Health and Welfare) .....	9,382
Hospital Admission Program (Films read by Tuberculosis Division) .....	12,012
Total .....	96,673

SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS  
(Indians Excluded)

	1953	%	1954	%
Clinics .....	574	66.3	708	72.4
Referred for admission by family physician .....	170	19.6	131	13.4
Surveys .....	3	.3	13	1.3
Referred by Department of Veteran Affairs or National Defence .....	70	8.1	26	2.7
Provincial Laboratory .....	30	3.5	12	1.2
Hospital Admission Films .....	2	.2	71	7.3
Other Sources .....	17	1.9	17	1.7
Total .....	866		978	

The following table sets forth the sources of discovery, giving credit to programs actually referring the suspects for establishment of diagnoses:

Family Doctor .....	475
Mobile Unit .....	56
Hospital Admission Program .....	82
Contacts .....	114
Department of National Health and Welfare .....	120
School Survey .....	33
Department of Indian Affairs .....	8
Surveys (Business, Hospital, etc.) .....	23
Department of National Defence and Veterans Affairs .....	33
Provincial Laboratory .....	12
Other Sources .....	22
Total .....	978



CLASSIFICATION OF NEW CASES OF ACTIVE AND INACTIVE  
PULMONARY TUBERCULOSIS

(Excluding Indians)

Minimal .....	489
Moderately Advanced .....	142
Far Advanced .....	73
Primary .....	89
Tuberculous pleurisy with effusion and evidence of previous pleurisy .....	109
Total .....	902

Number newly discovered cases active tuberculosis .....	394
Number newly discovered cases inactive tuberculosis .....	584
Number cases reactivated .....	73
Number non residents diagnosed tuberculous . . . . . (including 92 immigrants)	112
Number of known contacts of newly discovered cases of tuberculosis .....	1,867
Number of known contacts checked .....	1,450 (77.7%)

## TUBERCULIN 1954

Supplies of Old Tuberculin were sent upon request to Clinics, Health Units, Hospitals, Doctors and Public Health Nurses.

	Number of Bottles Sent
Dilution No. 1 .....	1
Dilution No. 2 .....	183
Dilution No. 3 .....	658
Dilution No. 4 .....	41

## BCG VACCINATIONS (NUMBER GIVEN TO) TUBERCULOSIS DIVISION

1. Nurses (a) Graduates .....	3
(b) Students .....	54
(c) Other Nursing Personnel .....	7
2. Other hospital personnel .....	234
3. All other persons (a) adults and children, contacts .....	31
(b) adults and children, not contacts .....	3
Total .....	332

## INSTITUTIONAL REPORTS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium
Patients under treatment January 1, 1954 .....	224	271
Patients admitted during 1954 .....	293	397
Patients transferred in during 1954 .....	3	4
Total treated .....	520	672
Patients discharged and died .....	280	377
Patients transferred out .....	4	3
Total discharged .....	284	380
Patients under treatment December 31, 1954 .....	236	292
Number patients under treatment January 1, 1954 .....		495
Number of admissions during 1954 .....		690
Total number patients treated during 1954 .....		1,185

## DIAGNOSIS OF PATIENT ADMISSIONS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium
Non-tuberculous .....	15	9
For diagnosis .....	29	24
Pleural effusion .....	9	11
Tuberculosis inactive .....	16	11
Primary tuberculosis .....	16	25
Non-pulmonary tuberculosis:		
Addison's .....		3
Adenitis .....	5	12
Abscess .....	3	
Bone .....	10	18
Colitis .....		1
Cutaneous .....	1	
Endometritis .....	1	2
Meningitis .....	1	9
Peritonitis .....	5	1
Pelvic .....	1	
Proctitis with ulceration .....	1	
Renal, genito-urinary .....	13	14
Tabes mesenterica .....	1	
Pulmonary tuberculosis active:		
Minimal .....	20	50
Moderately advanced .....	70	110
Far advanced .....	71	92
Miliary .....	5	5
Total .....	293	397

## INSTITUTIONAL REPORTS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium
Number with positive sputum on admission .....	103	134
Number negative on admission .....	191	263
Number negative on admission, positive later .....	2	13
Number of readmissions during 1954 .....	70	121
Number both admitted and readmitted during 1954 .....	7	11
Number of patient days .....	82,458	104,986
Number of patient days in other provinces under reciprocal agreement .....		2,945
Number of patients at beginning of 1954 .....		9
Number of admissions in 1954 .....		11
Number of institutional patient days provided for non-residents under reciprocity .....		1,591
Total number of patient days including those in other provinces under reciprocity .....		190,389
Number of patients at beginning of 1954 .....		5
Number of admissions .....		7

## OPERATING ROOM REPORT

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Thoracoplasty:			
Number of stages .....	40	8	48
Number of 1st stages .....	30	5	35
Number of cases .....	30	5	35
Pneumonectomy .....	4	6	10
Upper lobectomy with decortication .....	—	1	1
Lobectomy .....	6	6	12
Segmental resection .....	6	6	12
Decortication of lung .....	—	1	1
Lobe resection .....	—	1	1
Wedge resection .....	1	—	1
Opening cavernostomy .....	—	1	1
Bronchus Block .....	—	1	1
Plombage .....	—	10	10
Pneumolysis .....	—	6	6
Phrenic Crush .....	2	—	2
Thoracotomy .....	1	—	1
Bronchoscopic examination .....	39	40	79
Aspirations (chest) .....	91	43	134
Casts .....	15	47	62
Orthopedic operations .....	7	21	28
Other .....	78	43	121

SUMMARY OF PNEUMO- CASES

	Baker Memorial Sanatorium		Aberhart Memorial Sanatorium		Other Points		Total	
	Thoracic	Peritoneal	Thoracic	Peritoneal	Thoracic	Peritoneal	Thoracic	Peritoneal
Under treatment January 1, 1954	17	60	77	83	28	13	122	156
Number of new cases during 1954	5	31	3	34	1	16	8	65
Number of cases under treatment on admission	5	3	7	5	---	---	13	24
	27	94	87	122	29	29	143	245
Number of cases discontinued	17	35	32	40	16	8	65	83
Number of cases transferred out of Alberta	---	2	1	1	---	---	1	3
Number of cases transferred to other sections of Division	2	9	4	11	1	1	7	21
	19	46	37	52	17	9	73	107
Number of cases under treatment as at December 31, 1954	8	48	50	70	12	20	70	138
Unsuccessfully attempted	3	---	1	---	---	---	4	---
Refills:								
Resident	144	1,615	208	1,452	---	---	352	3,067
Out-patient	523	960	1,545	1,580	215	587	2,283	3,127
	667	2,575	1,753	3,032	215	587	2,635	6,194

Patients received pneumothorax refills at the following outside points:

Bonnyville	Elk Point	Fort Vermilion	St. Paul	Wainwright	Westlock
Athabasca Hanna	Stettler Beaverlodge	Lethbridge St. Paul	High Prairie Mannville	Elk Point Lac La Biche	Vermilion Fort Vermilion
					Peace River Westlock
					Lamont

Patients received pneumoperitoneum refills at the following outside points:



## DEPARTMENT OF PUBLIC HEALTH

## LABORATORY REPORT

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Sputum Examinations:			
Positive .....	873	734	1,607
Negative .....	3,138	2,598	5,736
Urine Examinations .....	2,996	11,125	14,121
Blood Examinations:			
Blood Counts .....	1,530	3,357	4,887
Sedimentation Rates .....	2,550	2,784	5,344
Blood Sugars .....	109	2,090	2,199
Miscellaneous:			
Pleural fluid .....	16	18	34
Spinal fluid .....	31	1,247	1,278
Gastric analysis .....	6	15	21
Culture .....	645	879	1,524
Guinea pig inoculation .....	363	731	1,094
Other .....	631	868	1,499
Total .....	12,888	26,546	39,344
Wasserman Report:			
Positive .....	3	6	9
Negative .....	280	310	590
Total .....	283	316	599
Basal Metabolism Rate .....	---	20	20
Cardiograph .....	---	39	39

## DENTAL REPORT

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Number of patients .....	425	334	759
Number of treatments .....	87	765	852
Number of prophylactic treatments .....	111	60	171
Number of fillings .....	440	525	965
Number of extractions .....	165	340	505
Number of new dentures and repairs .....	38	48	86

## X-RAY DEPARTMENT REPORT

	Baker Sanatorium		Aberhart Sanatorium		Total		Grand Total
	In Patients	Out Patients	In Patients	Out Patients	In Patients	Out Patients	
Radiographs Made:							
Chest—large .....	1,074	1,226	1,811	701	2,885	1,927	4,812
miniature .....	333	3,507	---	6,816	333	10,323	10,656
Ribs .....	1	2	---	---	1	2	3
Pelvis .....	4	5	79	28	83	33	116
Extremities .....	30	22	74	50	104	72	176
Spine .....	61	33	118	53	179	86	265
Shoulder .....	8	7	7	2	15	9	24
Sacro-iliac .....	1	4	---	---	1	4	5
Skull .....	3	2	7	1	10	3	13
Sinuses .....	---	---	4	5	4	5	9
F.P. Abdomen .....	13	1	24	8	37	9	46
G.B. Series .....	2	1	3	---	5	1	6
G.I. Series .....	11	---	3	---	14	---	14
Barium Enema .....	5	---	1	---	6	---	6
Intravenous Pyelogram .....	14	6	27	9	41	15	56
Retrograde Pyelogram .....	9	---	7	2	16	2	18
Sinogram .....	2	---	31	2	33	2	35
Bronchogram .....	6	---	39	3	45	3	48
Ordographs .....	5	---	78	6	82	6	88
Dental .....	16	1	148	---	164	1	165
Hip .....	10	10	---	---	10	10	20
Jaw .....	---	2	---	---	---	2	2
K.U.B. .....	1	---	---	---	1	---	1
Stomach .....	1	---	---	---	1	---	1
Barium Swallow .....	---	---	1	---	1	---	1
Planograph .....	10	---	---	---	10	---	10
Audiogram .....	1	---	---	---	1	---	1
Oesophagus .....	1	---	---	---	1	---	1
Total .....	1,621	4,829	2,462	7,686	4,083	12,515	16,598
Fluoroscopic Examinations .....	2,010	1,472	1,773	2,893	3,783	4,365	8,148
Films sent in for interpretation .....	6,924	---	7,869	---	---	---	14,793
Basal Metabolism Rate .....	4	---	---	---	---	---	4
Cardiograph .....	20	---	---	---	---	---	20

## CLASSIFICATION OF DISCHARGED PATIENTS

	On Admission	Residence		On Discharge					
		31 Days or Less	Over 31 Days	In.	A6	A3	A.I.	A.U.	D.
For Diagnosis .....	81	63	18	---	---	1	2	1	1
Primary tuberculosis .....	40	---	40	---	3	28	9	---	---
Reinfection type pulmonary tuberculosis clinical:									
Minimal .....	52	4	48	9	---	30	13	---	---
Moderately advanced .....	85	14	71	15	7	49	9	2	2
Far advanced .....	31	9	22	6	8	9	3	2	3
Reinfection type pulmonary tuberculosis positive:									
Minimal .....	18	---	18	---	---	8	8	---	1
Moderately advanced .....	91	1	90	5	4	60	17	1	4
Far advanced .....	129	7	122	1	11	63	35	2	17
Miliary .....	7	1	6	---	1	4	---	---	2
Tuberculosis pleurisy .....	27	---	27	---	---	21	6	---	---
Non-pulmonary Tuberculosis:									
Addison's Disease .....	7	1	6	2	---	---	3	---	2
Adenitis .....	10	3	7	2	---	---	1	6	1
Abscess .....	2	---	2	1	---	---	1	---	---
Bone .....	30	4	26	12	---	---	17	---	1
Cutaneous .....	1	---	1	1	---	---	---	---	---
Endometritis .....	1	---	1	---	---	---	1	---	---
Genito-urinary and renal .....	30	4	26	8	---	3	16	2	1
Meningitis .....	5	1	4	1	---	1	2	---	1
Peritonitis .....	6	---	6	2	---	1	3	---	---
Polyserositis .....	1	---	1	---	---	---	1	---	---
Synovitis .....	1	---	1	---	---	---	1	---	---
Tabs mesenterica .....	1	---	1	1	---	---	---	---	---
Total active tuberculosis .....	576	50	526	66	34	278	149	16	36
Total treated .....			544	53	30	275	141	11	23
Total untreated .....		113		13	6	3	8	5	13
Grand Total .....	657	113	544	66	34	278	149	16	36

Explanation of Abbreviations and Terms Used: The standard classification is that of the National Tuberculosis Association. Minimal, moderately advanced and far advanced refer to anatomical extent of disease.

In. .... Inactive      A.I. .... Active Improved  
A6 .... Arrested 6 months      A.U. .... Active Unimproved  
A3 .... Arrested 3 months      D. .... Died

N.B.—2 cases considered tuberculosis on admission were found to be non-tuberculous.

## CLASSIFICATION ON ADMISSION OF 657 DISCHARGED PATIENTS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
For diagnosis .....	46	35	81
Primary tuberculosis .....	6	34	40
Pulmonary tuberculosis .....	171	242	413
Tuberculous pleurisy .....	11	16	27
Non-pulmonary tuberculosis .....	46	50	96
Total .....	280	377	657

## CLASSIFICATION ON DISCHARGE OF TREATED CASES OF ACTIVE TUBERCULOSIS AND TUBERCULOUS PLEURISY

	On Admission Number	On Discharge Improved	On Discharge Unimproved	Died
Minimal .....	70	69	---	1
Moderately advanced .....	176	167	3	6
Far advanced .....	160	136	4	20
Primary .....	40	40	---	---
Miliary .....	7	5	---	2
Non-pulmonary tuberculosis .....	96	82	8	6
Tuberculous pleurisy .....	27	27	---	---
Total .....	576	526	15	35

## DEPARTMENT OF PUBLIC HEALTH

## RESIDENCE OF DISCHARGED PATIENTS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Cities .....	132	153	285
Towns .....	18	28	46
Villages .....	6	14	20
Enlarged Municipal Districts .....	67	75	142
Local Improvement Districts .....	39	97	136
Special Areas Board .....	3	1	4
Non-Resident .....	15	9	24
Total .....	280	377	657
Sex Discharged Patients			
Male .....	168	203	371
Female .....	112	174	286
Total .....	280	377	657
Age on Admission			
From 1 - 9 .....	14	43	57
From 10 - 14 .....	8	18	26
From 15 - 19 .....	18	37	55
From 20 - 29 .....	70	95	165
From 30 - 39 .....	53	62	115
From 40 - 49 .....	51	47	98
From 50 - 59 .....	30	42	72
From 60 - 69 .....	25	20	45
From 70 and over .....	11	13	24
Total .....	280	377	657
Social Status of Discharged Patients			
Single .....	105	187	292
Married .....	155	169	324
Divorced .....	3	3	6
Separated .....	6	11	17
Widowed .....	11	7	18
Total .....	280	377	657
Residence in Alberta			
Born in Alberta .....	100	221	321
1 year or less .....	20	11	31
1 - 5 years .....	34	37	71
6 - 9 years .....	23	5	28
10 - 14 years .....	5	7	12
15 - 19 years .....	13	4	17
20 - 29 years .....	28	37	65
30 or more years .....	57	55	112
Total .....	280	377	657

## LENGTH OF STAY IN SANATORIUM OF 657 DISCHARGED PATIENTS

	Baker Memorial Sanatorium	Aberhart Memorial Sanatorium	Total
Deaths:			
Number in Sanatorium under 31 days .....	7	6	13
Number of patient days .....	95	89	184
Average patient days .....	13.6	14.8	14.2
Number in Sanatorium 31 or more days .....	11	12	23
Number of patient days .....	11,253	1,784	13,037
Average patient days .....	1,023	148.7	569.9
Discharges:			
Number in Sanatorium under 31 days .....	56	41	97
Number of patient days .....	734	602	1,336
Average number patient days .....	13.1	14.7	13.8
Number in Sanatorium 31 or more days .....	206	318	524
Number of patient days .....	53,513	100,133	153,646
Average number of patient days .....	259.8	314.9	293.2
Total number deaths and discharges .....	280	377	657
Total number patient days .....	65,595	102,608	168,203
Average number patient days .....	234.3	272.5	256.01
Number non-pulmonary admissions .....	47	68	115
Number non-pulmonary days .....	10,155	18,912	29,067
Average number patient days non-pulmonary .....	320.9	352.5	336.7



## Division of Mental Health

RANDALL R. MACLEAN, M.D., *Director*

Separate reports are submitted for each Branch of the Division, namely:

Eugenics Board  
Provincial Guidance Clinics  
Provincial Mental Hospital, PONOKA  
Provincial Mental Institute, EDMONTON  
Provincial Auxiliary Mental Hospital, CLARESHOLM  
Provincial Auxiliary Mental Hospital, RAYMOND  
Provincial Training School, RED DEER  
Rosehaven, CAMROSE

The total patient population in the various Institutions of this Division on January 1st, 1954, was 4,033 (males 2,422; females 1,611). The total patient population in the Institutions on December 31st, 1954, was 4,275 (males 2,535; females 1,740). This represents a total increase of patients of 242 (males 113; females 129). The Provincial Mental Hospital, PONOKA, admitted 712 patients (males 410; females 302). This was 28 more than the previous year. The Provincial Mental Institute, EDMONTON, admitted 639 patients (males 414; females 225). This was 129 more than the previous year. This was inclusive of patients remanded to the Institute from the Courts for observation. The Provincial Training School, RED DEER, admitted 205 children (boys 105; girls 100). During the year there were 284 transfers among the various Institutions. A total of 199 patients (males 110; females 89) were transferred to ROSEHAVEN; and there was a total of 229 deaths (males 162; females 67) in all the Institutions combined. The commonest causes of death were those referable to the circulatory and respiratory systems. There were four deaths from Pulmonary Tuberculosis.

The building programme progressed during the year. Work commenced on the services building of the new Institution for Defectives at RED DEER. The new ward for boys at the Training School was completed early in 1955. At the Provincial Mental Institute, EDMONTON, work continued on the new reception unit. A new ward for 100 women patients was opened in November at ROSEHAVEN, CAMROSE.

Active treatment programmes were continued at the various Institutions. Of special note has been the use of the newer drugs, such as Largactil and Serpasil. It is too early to give a reliable opinion on the efficacy of these preparations as compared with Electro and Insulin Shock Therapy.

Staff training programmes were carried out as before in the Provincial Mental Hospital, PONOKA, the Provincial Mental Institute, EDMONTON, and the Provincial Training School, RED DEER. Some 32 staff members (15 men and 17 women) graduated in the various courses. At the Provincial Mental

Hospital, PONOKA, 10 registered nurses received their diplomas in an eight-months' post-graduate course. Some 82 affiliating nursing students from various Alberta general hospitals received instruction.

The services of the Provincial Guidance Clinics were continued throughout the year. Clinics were held at some 50 to 60 key points in the Province. The case-load of the Clinics increased. A branch office of the Calgary Clinic was opened late in the year in the Provincial Building in Lethbridge, a full-time social worker and office assistance having been provided for. The Clinic staffs participated also in many public education activities, including group discussions, institutes, workshops, lectures, talks, and radio work. The Calgary Clinic continued to hold therapy sessions with a group of discharged women patients from the Provincial Mental Hospital, PONOKA.

Nine meetings of the Eugenics Board were held during the year. Five were held at the Provincial Mental Hospital, PONOKA; four at the Provincial Training School, RED DEER. A total of 81 cases was presented for the Board's consideration (41 males; 40 females). Sixty-two operations (37 males; 25 females) were performed during the year. The total number of cases operated upon to December 31st, 1954, was 1,436 (576 males; 860 females). All operations except one were performed at the Provincial Mental Hospital, PONOKA, by the duly appointed honorary surgeons, assisted by the medical staff of the same hospital.

TABULATED SUMMARY — INSTITUTIONS — MOVEMENT OF PATIENTS

HOSPITAL	Patients in Hospital December 31, 1953			Admissions			Discharges			Deaths			Patients in Hospital December 31, 1954		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Ponoka	958	631	1,589	410	302	712	305	222	527	47	28	75	938	605	1,543
Oliver	996	437	1,433	414	225	639	323	184	507	59	17	76	998	447	1,445
Red Deer	265	211	476	105	100	205	14	19	33	5	8	13	348	284	632
Claresholm	---	99	99	---	1	1	---	---	---	---	1	1	---	95	95
Raymond	---	135	135	---	2	2	---	---	---	---	3	3	---	134	134
Rosehaven	203	98	301	---	---	---	3	---	3	51	10	61	251	175	426
Totals	2,422	1,611	4,033	929	630	1,559	645	425	1,070	162	67	229	2,535	1,740	4,275

TRANSFERS "IN" AND "OUT" OF INSTITUTIONS

HOSPITAL	Transfers In			Transfers Out		
	M.	F.	T.	M.	F.	T.
Ponoka	36	22	58	121	108	229
Oliver	9	3	12	34	7	41
Red Deer	3	2	5	6	2	8
Claresholm	---	6	6	---	7	7
Raymond	---	4	4	---	3	3
Rosehaven	110	89	199	---	1	1





## FIRST ADMISSIONS, 1954

DIAGNOSTIC CLASS	Provincial Mental Institute, Edmonton	Provincial Mental Hospital, Ponoka
Syphilis with psychosis .....	1	5
Schizophrenia .....	127	103
Manic depressive .....	4	29
Involuntal .....	12	8
Paranoia .....	8	28
Senium .....	49	96
Pre-senile .....	2	3
Alcoholic psychosis .....	8	27
Other and unspecified Psychoses .....	26	32
Anxiety reaction .....	2	5
Hysterical reaction .....	3	8
Obsessive compulsive reaction .....	1	1
Neurotic depressive reaction .....	8	6
Somatic reaction .....	1	1
Other and unspecified psychoneurotic reactions .....	4	5
Pathological personality .....	53	16
Alcoholism without psychosis .....	53	16
Drug addiction .....	---	---
Mental deficiency without psychosis .....	17	17
Epilepsy .....	2	3
Primary behaviour disorders .....	7	1
Other and unspecified disorders of character, behaviour and intelligence .....	7	---
Syphilis without psychosis .....	1	---
Mental observation without need for further medical care .....	4	1
Other non-psychiatric conditions .....	10	16
Totals .....	410	427

## The Eugenics Board

The Eugenics Board for the Province of Alberta held nine meetings during the year 1954. All of these meetings were held at the Provincial Mental Hospital, Ponoka, and the Provincial Training School, Red Deer. The dates of the meetings held during 1954 were as follows:

- Feb. 5 — The Provincial Mental Hospital, Ponoka.
- Feb. 5 — The Provincial Training School, Red Deer.
- April 23 — The Provincial Mental Hospital, Ponoka.
- April 23 — The Provincial Training School, Red Deer.
- June 11 — The Provincial Mental Hospital, Ponoka.
- June 11 — The Provincial Training School, Red Deer.
- Sept. 24 — The Provincial Mental Hospital, Ponoka.
- Nov. 19 — The Provincial Mental Hospital, Ponoka.
- Nov. 19 — The Provincial Training School, Red Deer.

### *Cases Presented*

The Board considered 81 cases. There were 41 male and 40 female cases, of which 54 were passed in accordance with (1937, C.47, S.5) of the Sterilization Act, 23 were passed subject to the consent of the patient, and four were passed subject to the consent of the patient and parent or guardian.

Of the 81 cases passed by the Board during the year, 41 had been first examined at a Provincial Guidance Clinic, although some of these had been institutionalized before presentation. This group of 41 cases was made up of 25 males and 16 females.

### *Operations*

Operations were performed on 62 cases during the year, 37 being male and 25 female. All of these operations were performed at the Provincial Mental Hospital, Ponoka, with the exception of one case, which was operated upon at the University of Alberta Hospital, Edmonton, at the request of the mother and by special financial arrangement with her and with the hospital.

The surgical operations mentioned above were performed by the surgical consultants Dr. J. W. Richardson, Calgary, or Dr. J. Ross Vant, of Edmonton.

Dr. W. R. Fraser, of Calgary, was official substitute for Dr. E. R. Selby, who was absent due to illness, at the meetings held at the Provincial Mental Hospital, Ponoka, and the Provincial Training School, Red Deer, on February 5th, 1954.

As in previous years, the Eugenics Board wishes to express its sincere appreciation and thanks to the Director, Division of Mental Health, to the medical superintendents and their respective staffs, and the guidance clinics, for their co-operation in connection with the work of the Board.

### *Tables*

A tabular summary of the work of the Eugenics Board to December 31st, 1954, is appended.



## CASES PRESENTED AND PASSED

(To December 31, 1954)

Years	YEARLY TOTALS			CUMULATIVE TOTALS		
	Male	Female	Totals	Male	Female	Totals
1929-1933	87	201	288	87	201	288
1934-1938	557	438	995	644	639	1,283
1939-1943	339	299	638	983	938	1,921
1944	56	73	129	1,039	1,011	2,050
1945	54	64	118	1,093	1,075	2,168
1946	52	53	105	1,145	1,128	2,273
1947	38	53	91	1,183	1,181	2,364
1948	37	68	105	1,220	1,249	2,469
1949	52	57	109	1,272	1,306	2,578
1950	37	60	97	1,309	1,366	2,675
1951	34	48	82	1,343	1,414	2,757
1952	21	36	57	1,364	1,450	2,814
1953	43	38	81	1,407	1,488	2,895
1954	41	40	81	1,448	1,528	2,976

## OPERATIONS ONLY

(To December 31, 1954)

Years	YEARLY TOTALS			CUMULATIVE TOTALS		
	Male	Female	Totals	Male	Female	Totals
1929-1933	48	158	206	48	158	206
1934-1938	198	240	438	246	398	644
1939-1943	122	151	273	368	549	917
1944	13	27	40	381	576	957
1945	18	29	47	399	605	1,004
1946	24	31	55	423	636	1,059
1947	16	15	31	439	651	1,090
1948	16	22	38	455	673	1,128
1949	20	27	47	475	700	1,175
1950	21	46	67	496	746	1,242
1951	16	41	57	512	787	1,299
1952	6	18	24	518	805	1,323
1953	21	30	51	539	835	1,374
1954	37	25	62	576	860	1,436

## Provincial Guidance Clinics

### PROVINCIAL GUIDANCE CLINICS, NORTHERN ZONE

During 1954, the Northern Clinics operated on much the same basis as in previous years. A total of 816 new cases were examined, an increase of 49 new cases. Three hundred and twelve cases were re-examined or carried in treatment, giving an increase of 71 cases for the year. The total case load was 1,128 patients. The total work load was 6,705; an increase of 503 periods, practically all of which is accounted for by increased interviews with patients or members of their family. This indicates the increased intensity, and number of treatment periods. The greatest number of cases carried in treatment continues to be drawn from the education area.

The age and sex distribution of cases examined remains essentially the same as in previous years, with 92.9% of cases under the age of 20 years.

As to classification of types of new Clinic cases examined, there has been an increase in the percentage of emotional problems under the age of six, and in mental defectives over the age of 19, the latter being due to the change in disability pensions.

Of the total, 39.3% were referred from schools; the medical profession and medical clinics referred 21.4%, and 13.9% attended voluntarily.

During the year, 125 periods of educational activity were given to community organizations, such as Home and School groups and to students of the Medical and Nursing Schools.

#### CITY OF EDMONTON

New cases numbered 492, and there were 244 cases re-registered during the year. The work load was 5,338 periods, an increase of 407 periods over 1953, and an increase of 1,027 periods over 1952. In the Edmonton area 34.7% of new cases seen were referred by the medical profession and medical clinics, and 20.3% of new cases attended voluntarily.

#### BARRHEAD-WESTLOCK

Two Clinics were held in each centre. There were 28 new cases and five re-registered cases, with a total work load of 109.

#### CAMROSE-WETASKIWIN

No clinics were held at Camrose. In Wetaskiwin, several clinics had to be cancelled because of inclement weather. Fourteen new cases were examined and six re-registered. The work load was 66.

#### WAINWRIGHT-HOLDEN

The number of new cases examined was 36, and 11 re-registered. The work load was 136.

#### ATHABASCA-LAC LA BICHE

One clinic was held in Lac La Biche, and two in Athabasca. There were 17 new cases, and six re-registered. The work load was 79.

## BONNYVILLE-ST. PAUL-TWO HILLS

There were 45 new cases and one re-registered case. The total work load was 187.

## VEGREVILLE-VERMILION

There were 60 new cases examined, and 13 re-registered cases. The work load was 241.

## PEACE RIVER-GRANDE PRAIRIE

Two trips of two weeks' duration were made into these areas of the Province. One hundred and twenty-four new cases and 26 re-registered cases were examined. The work load was 549.

## PONOKA DISTRICT GUIDANCE CLINIC

The clinics in this district were, as previously, serviced by members of the Provincial Mental Hospital staff. Clinics were scheduled approximately every other month at Ponoka, Rimbey, Stettler and Castor. A clinic was also held at Consort in December. This district had not previously had clinic service. The number of new cases was 46, and five re-registered cases, with a total work load of 201. This is an increase from 1953. The clinics in the Stettler-Castor district are now being organized completely by the Stettler Health Unit instead of partially by School officials. Of the total cases, 39% were referred by the schools, 24% by private doctors, 20% by community agencies, and the remainder by various other sources.

## PONOKA-RIMBEY

Two clinics were held at Rimbey. No clinics were held at Ponoka, but a number of cases were examined, for the most part at the request of one of the local physicians. There were 19 new cases seen, and three re-registered cases, with a work load of 80.

## CASTOR

Two clinics were held at Castor. There were seven new cases seen, with a work load of 26.

## STETTLER-CONSORT

Two clinics were held at Stettler. There were 20 new cases seen, and two re-registered cases, with a work load of 95.

## RED DEER GUIDANCE CLINIC

Clinic activities in 1954 have shown little real variation. There was a total of 95 new cases seen during this year.

Due to the greater liaison shown this year with the educational authorities, there was a high increase in defectives seen at the clinic this year, viz., 18 compared with 11 last year.

A total number of 45 E.C.T. treatments were given at the Municipal Hospital.

*Extra Clinic Activities* — There has been wide acceptance of the clinic in Red Deer, as in previous years. The greatest collaboration was with school authorities and Home and School Associations.

Two clinic members are regular members of a panel which broadcasts for half an hour each month over CKRD on mental hygiene and school problems.



During the year 14 talks were given to Women's Institutes and Home and School Association groups in central Alberta.

The clinic has been helpful to the police and Magistrate's Court as consultants for selected cases.

#### PROVINCIAL GUIDANCE CLINICS, SOUTHERN ZONE

There have been several changes in staff personnel during the year 1954.

The clinic trips have remained much the same as last year. The monthly trips to Lethbridge and Medicine Hat were scheduled as previously. Visits have been made to High River, Brooks, and Pincher Creek on request, when there were sufficient cases in those areas.

The work load continues to show an appreciable increase. In 1954 the work load was 6,147, as compared with 5,725 in 1953 and 3,332 in 1952. A slight decrease in the number of new patients registered at the Clinic in Calgary has been offset by the increase in the number of re-registered patients from 116 in 1953, to 249 in 1954. These figures indicate a more intensive therapeutic program carried out for the Calgary area during 1954. The orientation of the Clinic is towards carrying out as much useful therapeutic work as possible, with a lesser degree of diagnostic service.

#### CITY OF CALGARY

The total work load, 5,366, is compared to the previous figure of 4,630. As noted before, 1954 represents a more intensive therapeutic program in this area. There has been an increase in the number of psychotic patients examined during this period, while the psychoneurotic group remains essentially the same.

#### LETHBRIDGE

The services of a full time social worker have been established in Lethbridge.

There was an increase of new cases to 108, as compared with the previous figure of 76.

The psychiatrist and psychologists from the Calgary office continued to make monthly trips to Lethbridge. Although much of the social worker's time has been devoted to organizational problems, it will now be possible to initiate a useful therapeutic program. The clinic team visited Lethbridge eight times.

#### MEDICINE HAT-BROOKS

Eighty-four new cases were examined in this area, as compared with 82 last year. There were 32 re-registered cases, as compared with the previous figure of 24. Eight trips were made by the clinic during the year, with a total work load of 294.

#### HIGH RIVER

Three visits were made to High River during the year, as compared with an equal number in 1953. Sixteen new cases were examined, as compared with the previous figure of 27. Re-registered cases were essentially the same.

#### PINCHER CREEK

One visit was made to Pincher Creek during the year, as

compared with no visits during 1953. A total of seven new cases were examined, with one re-registered case.

### SUMMARY

Calgary remains the main area for the work of the clinic. Lethbridge and Medicine Hat continue to entail considerable responsibility.

It is noted that during the year many cases from the country areas came directly to the Clinic location in Calgary. Referrals continue to be satisfactory. Interest continues at a high level on the part of the population towards mental health problems.

TABLE No. 1 (1954)

#### SUMMARY OF NEW AND RE-REGISTERED CASES EXAMINED, TREATMENT PERIODS, INTERVIEWS, PSYCHOLOGICAL EXAMINATIONS, AND TOTAL WORK LOAD OF CLINICS

Clinic Districts	New Cases			Re-Registered Cases			Distribution of Work				Total Work Load
	M	F	T	M	F	T	Pat.	Col.	Gen.	P.E.	
Edmonton and District	514	302	816	194	118	312	2,120	2,459	1,175	951	6,705
Calgary and District	285	266	551	182	132	314	2,645	2,084	998	420	6,147
Ponoka & Red Deer Dist.	74	67	141	26	14	40	400	276	77	95	848
Totals	873	635	1,508	402	264	666	5,165	4,819	2,250	1,466	13,700

Notes: Total new cases examined since the Clinics opened in 1929 is now 16,138.

Edmonton and District includes all the area served from Wetaskiwin north. This is the Northern Zone. It includes Clinics held in the Peace River-Grande Prairie area, and such points as Athabasca, Barrhead, Bonnyville, Holden, Lac La Biche, St. Paul, Two Hills, Vegreville, Vermilion, Wainwright, Westlock and Wetaskiwin.

Calgary and District includes the area served from Didsbury south. This is the Southern Zone. It includes Clinics held at such points as Cardston, Claresholm, Didsbury, Drumheller, High River, Lethbridge, Medicine Hat, and Pincher Creek.

Ponoka and Red Deer District includes the area from Didsbury on the south to Wetaskiwin on the north. This is the Central Zone. It includes Clinics at such points as Castor, Ponoka, Red Deer, Rimbey, Rocky Mountain House and Stettler.

Re-registered cases are those that have been examined previously at a Clinic, and are seen again for further consultation and/or treatment.

Pat.—Patient contacts including treatment periods.

Col.—Collateral, or contacts with a patient's parents or relatives, or with others closely interested.

Gen.—General contacts regarding Clinic activities and work, including those with other Agencies and Community Services.

P.E.—Psychological examinations and tests.

Total Work Load—This includes patient interviews and treatment periods, interviews with parents and relatives, interviews with other Agencies concerning patients or Clinic work, and psychological examinations by Clinic staff members. It includes as well talks and addresses, and teaching periods by staff members.

TABLE No. 2 (1954)

#### AGE AND SEX CLASSIFICATION OF NEW CLINIC CASES

Age Group	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals			Percentages		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0 - 4	42	25	67	35	32	67	5	3	8	82	60	142	9.4	9.4	9.4
5 - 9	235	97	332	111	73	184	27	13	40	373	183	556	42.7	28.8	36.9
10 - 14	142	80	222	70	31	101	19	5	24	231	116	347	26.5	18.2	23.0
15 - 19	68	70	138	27	37	64	4	7	11	99	114	213	11.3	18.0	14.1
20 - 24	6	10	16	9	18	27	3	2	5	18	30	48	2.1	4.8	3.2
25 - 29	7	3	10	12	19	31	4	10	14	23	32	55	2.6	5.0	3.6
30 - 34	3	6	9	8	18	26	2	6	8	13	30	43	1.5	4.8	2.9
35 - 39	2	3	5	5	11	16	4	6	10	11	20	31	1.3	3.2	2.1
40 - 44	2	3	5	0	7	7	0	3	3	2	13	15	0.2	2.0	1.0
45 - 49	1	2	3	5	5	10	1	3	4	7	10	17	0.8	1.6	1.1
50 & Over	6	3	9	3	12	15	5	8	13	14	23	37	1.6	3.6	2.4
Unknown	0	0	0	0	3	3	0	1	1	0	4	4	0.0	0.6	0.3
Totals	514	302	816	285	266	551	74	67	141	873	635	1,508	100.0	100.0	100.0

M—Male F—Female T—Total

TABLE No. 3A (1954)  
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES  
PRE-SCHOOL GROUP (0 to 5 years 11 months)

NATURE OF CASE	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problem with Adequate Intellect .....	5	7	12	1	2	3	0	1	1	6	10	16
Intellectual Inadequacy .....	21	10	31	17	20	37	4	4	8	42	34	76
Emotional Disorder .....	24	8	32	13	11	24	1	1	2	38	20	58
Thinking Disorder .....	1	0	1	0	0	0	0	0	0	1	0	1
Speech Disorder .....	10	5	15	8	4	12	0	0	0	18	9	27
Faulty Feeding Habits .....	0	0	0	1	0	1	0	0	0	1	0	1
Sleep Disturbances .....	3	0	3	0	1	1	0	0	0	3	1	4
Anti-Social Trends .....	0	0	0	1	3	4	0	0	0	1	3	4
Sexual Difficulties .....	0	0	0	2	0	2	0	0	0	2	0	2
Attack Disorders .....	0	1	1	0	0	0	1	0	1	1	1	2
Psychoneuroses .....	0	0	0	0	0	0	0	0	0	0	0	0
Psychoses .....	0	0	0	0	0	0	0	0	0	0	0	0
Non-Psychotic .....	1	0	1	2	1	3	0	0	0	3	1	4
Normal Child .....	2	4	6	3	0	3	0	1	1	5	5	10
Undiagnosed .....	0	0	0	0	2	2	0	0	0	0	2	2
Totals .....	67	35	102	48	44	92	6	7	13	121	86	207

TABLE No. 3B (1954)  
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES  
SCHOOL AGE GROUP (6 years to 18 years 11 months)

NATURE OF CASE	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problem with Adequate Intellect .....	152	84	236	65	20	85	8	0	8	225	104	329
Intellectual Inadequacy .....	84	60	144	40	38	78	11	4	15	135	102	237
Emotional Disorder .....	77	42	119	29	29	58	16	11	27	122	82	204
Thinking Disorder .....	7	3	10	5	0	5	3	1	4	15	4	19
Speech Disorder .....	19	3	22	7	0	7	2	1	3	28	4	32
Faulty Feeding Habits .....	0	0	0	0	0	0	0	0	0	0	0	0
Sleep Disturbances .....	1	2	3	4	2	6	1	0	1	6	4	10
Anti-Social Trends .....	50	26	76	10	9	19	0	0	0	60	35	95
Sexual Difficulties .....	4	2	6	0	3	3	0	0	0	4	5	9
Attack Disorders .....	6	4	10	2	1	3	1	1	2	9	6	15
Psychoneuroses .....	2	4	6	13	14	27	1	2	3	16	20	36
Psychoses .....	2	1	3	1	0	1	0	0	0	3	1	4
Non-Psychotic .....	1	1	2	8	1	9	1	0	1	10	2	12
Normal Child .....	9	4	13	1	1	2	5	0	5	15	5	20
Undiagnosed .....	0	0	0	7	4	11	0	0	0	7	4	11
Totals .....	414	236	650	192	122	314	49	20	69	655	378	1,033

TABLE No. 3C (1954)  
DIAGNOSTIC CLASSIFICATION OF NEW CLINIC CASES  
ADULT GROUP (19 years and over)

NATURE OF CASE	Edmonton and District			Calgary and District			Ponoka & Red Deer District			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Educational Problem with Adequate Intellect .....	7	1	8	3	4	7	1	0	1	11	5	16
Intellectual Inadequacy .....	9	8	17	2	7	9	3	3	6	14	18	32
Emotional Disorder .....	0	2	2	1	5	6	2	0	2	3	7	10
Thinking Disorder .....	3	2	5	3	1	4	0	0	0	6	3	9
Speech Disorder .....	0	0	0	0	0	0	0	0	0	0	0	0
Faulty Feeding Habits .....	0	0	0	0	0	0	0	0	0	0	0	0
Sleep Disturbances .....	0	0	0	0	0	0	0	0	0	0	0	0
Anti-Social Trends .....	0	0	0	0	0	0	0	0	0	0	0	0
Sexual Difficulties .....	1	1	2	0	0	0	1	0	1	2	1	3
Attack Disorders .....	0	0	0	1	2	3	1	0	1	2	2	4
Psychoneuroses .....	5	6	11	17	39	56	4	22	26	26	67	93
Psychoses .....	4	4	8	9	34	43	5	8	13	18	46	64
Non-Psychotic .....	4	7	11	5	7	12	2	4	6	11	18	29
Normal .....	0	0	0	0	0	0	0	0	0	0	0	0
Undiagnosed .....	0	0	0	4	1	5	0	3	3	4	4	8
TOTALS:												
Table No. 3C .....	33	31	64	45	100	145	19	40	59	97	171	268
Table No. 3B .....	414	236	650	192	122	314	49	20	69	655	378	1,033
Table No. 3A .....	67	35	102	48	44	92	6	7	13	121	86	207
GRAND TOTALS .....	514	302	816	285	266	551	74	67	141	873	635	1,508

M.—Male F.—Female T.—Total



## Provincial Mental Hospital, Ponoka

T. C. MICHIE, M.D., *Medical Superintendent*

### *Patient Population Changes*

The resident population on January 1st, 1954, was One Thousand, Five Hundred and Eighty-nine (1,589), of whom Nine Hundred and Fifty-eight (958) were male, and Six Hundred and Thirty-one (631) female. The number in residence on December 31st, 1954, was One Thousand, Five Hundred and Forty-three (1,543), of whom Nine Hundred and Thirty-eight (938) were male and Six Hundred and Five (605) female. This was an overall decrease of Forty-six (46). The details are as set forth in Table I.

### *Admission of Patients*

Seven Hundred and Twelve (712) patients were admitted, and this figure is exclusive of transfers from other Provincial Mental Institutions. This represents an increase of Twenty-eight (28) over the previous year. Four Hundred and Ten (410) of the admissions were men, and Three Hundred and Two (302) were women. Admissions by voluntary application numbered One Hundred and Sixty-two (162); by medical certificates One Hundred and Fifty-three (153); and by warrant Three Hundred and Eighty-nine (389). Eight (8) were admitted under "The Mental Defectives Act". Fifty-eight (58) patients were admitted to this Hospital as transfers from other mental institutions in the Province. There was an increase in those admitted by voluntary application and by warrant, and a slight decrease in certified cases.

There was a remarkable similarity in the numbers admitted in the various diagnostic categories, as compared with the previous year. The only change of any significance was an increase in the number of alcoholics. This was probably due to the increased general interest in the treatment of alcoholics in the Province.

### *Separation of Patients*

The number of patients discharged was Five Hundred and Twenty-seven (527), of whom Three Hundred and Five (305) were men, and Two Hundred and Twenty-two (222) women. This was an increase of Twenty-one (21) as compared with 1953. Two Hundred and Twenty-nine (229) patients were transferred to other Provincial Mental Institutions. Seventy-five (75) patients died.

The number discharged was slightly higher than in the previous year.

### *General Health of Patients*

The general health of the patients was satisfactory, and there were no epidemics of consequence. A careful watch was maintained for the occurrence of Tuberculosis, and Three (3) patients were transferred during the year to the Tuberculosis Unit at the Provincial Mental Institute, Edmonton.

*Clinical Work*

This was maintained at a level in keeping with accepted standards. Electroshock and Insulin-shock were used extensively, and great emphasis was laid on Group Therapy. The nursing staff was utilized extensively in the latter method of treatment.

*Occupational Therapy*

This form of treatment continued to prove its effectiveness, and was used throughout the Hospital. The library and canteen were operated by this Department.

*Recreational Therapy and Physical Training*

Practically all patients in the Hospital benefited from the activities of this Department. Recreational Therapy is now firmly established. This proved to be highly beneficial, especially on the continued treatment wards. The program was varied, and in keeping with the needs of the group involved.

*Religious Services*

The religious services were continued, as in the past. The visiting clergymen took a great interest in the patients and their spiritual needs.

*Social Services*

The Hospital had one social worker, as in recent years. The worker was a registered nurse, with psychiatric training, who gave excellent service. It was necessary for her to do a great deal of travelling. She continued to assist with the "After-Care Group" in Calgary. A social worker is essential for gathering information regarding patients, in assessing situations, and assisting in rehabilitation.

*Dental Services*

The service continued with a full-time dentist, who supplied dental care to the patients of this Hospital, and also those in the Provincial Auxiliary Hospitals at Claresholm and Raymond. This Department operated with efficiency and provided adequate coverage to our patients.

*X-Ray Services*

This Department was operated under the direction of a nurse-technician. All chest plates were referred to the Baker Memorial Sanatorium, Calgary, for interpretation. The majority of the other plates were read by the staff of this Hospital. The service rendered was very satisfactory.

*Laboratory Services*

The well-equipped laboratory continued to supply the necessary facilities for the Hospital. It was seldom necessary to enlist the aid of the Provincial Laboratory, except for serological tests.

*School of Nursing*

There was no essential change in the teaching program.

There were Four (4) qualified instructors, and assistance in teaching was given by the professional personnel of the Hospital.

Forty-seven (47) students received instruction in the four-year course in General and Psychiatric Nursing, and Nine (9) were affiliating at General Hospital Schools of Nursing. Eight (8) women completed this course in May, 1954, and of this number, Seven (7) were successful in the Registered Nurses' examinations. One (1) was prevented from writing, because of illness.

Thirty-eight (38) male attendants received instruction in the course in Psychiatric Nursing. Seven (7) men completed this course in May, and received certificates.

There were Eighty-two (82) affiliating student nurses from the Archer Memorial Hospital, Lamont; the Calgary General Hospital, Calgary; Galt Hospital, Lethbridge; the Medicine Hat General Hospital, Medicine Hat; St. Joseph's General Hospital, Vegreville; and St. Michael's Hospital, Lethbridge, who received eight weeks' instruction at this Hospital.

Ten (10) registered nurses completed the eight-month course in Psychiatric Nursing, and received diplomas.

Twenty-one (21) students in Public Health Nursing from the University of Alberta spent short periods at this Hospital, as part of their field work.

Two (2) graduate student nurses from the course in Supervision in Psychiatric Nursing from the University of Toronto, spent Three and one-half ( $3\frac{1}{2}$ ) months in field work here.

Certified nursing aides and ward aides were given instruction in Psychiatric Nursing.

### *Visitors*

A great many of the patients were visited by relatives and friends. This number appeared to be increasing. The Hospital was visited on a number of occasions by the Hon. Dr. W. W. Cross, Minister of Health, and Dr. A. Somerville, Deputy Minister of Health. Dr. Randall R. MacLean, Director of the Division of Mental Health, frequently inspected the facilities of the Hospital, and when necessary, gave much appreciated direction.

The annual inspection of the Hospital was carried out by the "Visiting Board". This was done with thoroughness, and was searching in nature. Criticism and constructive suggestions were offered, whenever necessary. The Visiting Board has always encouraged the staff and patients to talk freely to its members, who are conversant with every phase of hospital operation.

Two organized clubs, one of men and the other women, voluntarily assumed certain obligations with a view to assisting groups of patients in the Hospital. The objective in such a project was to initiate and maintain the patients' interest in the community, with the hope that this would facilitate their recovery and rehabilitation.

### *The Eugenics Board*

Five (5) meetings were held by the Board at this Hospital during 1954. Forty-six (46) patients were presented to the



Board, of whom Seventeen (17) were male, and Twenty-nine (29) female. Sixty-one (61) operations were performed for sexual sterilization, Thirty-seven (37) being on male, and Twenty-four (24) on female patients.

#### *Maintenance Department*

Buildings were properly maintained throughout the year. A new quarry tiled floor was laid in the main kitchen and adjacent corridor. Much redecorating was done throughout the Hospital buildings, and in staff residences.

#### *Fire Protection*

The equipment was well maintained and regular drill practices were held on two days of each week. In July, a new system was initiated whereby a stand-by crew of Three (3) members of the Fire Brigade were placed on duty each night from 5 p.m. until 8 a.m., and from 12 noon Saturday until 8 a.m. Monday morning. Holidays are covered in a similar manner. This provided the patients and Hospital property with much more adequate protection.

#### *New Buildings and Improvements*

"Dawnview", a new dormitory for men, was opened in January, 1954, and provided excellent accommodation for about One Hundred (100) men. The program previously instituted to move and re-locate the shops at the rear of the Hospital was essentially completed. In February, 1954, the mechanics' and carpenters' workshop was placed in operation, and proved to be a great asset, as compared with the previous facilities. The former carpenter shop was converted into a shoe shop and tinsmith shop. Construction was commenced on a new cannery, but this was not completed at the end of the year. Work was also begun on a male staff residence. The building was to a large extent completed by the end of the year. Throughout 1954, work was continued on the former Male Four Building. This is being converted into women's wards.

The project of re-wiring the entire Hospital by the Department of Public Works continued, and good progress was made. It will require a considerable period of time before the entire electrical system is placed on alternating current.

#### *Business Office*

This Department operated efficiently during the year. Collections were maintained at a fair level. The business manager assumed direct responsibility for the supervision of the farm and ancillary services.

#### *Provincial Mental Hospital Farm*

Adverse weather conditions were, for a large part, responsible for a poor yield. The Poultry Department, however, gave excellent results. The production from the dairy herd was inadequate for the needs.

#### *Ancillary Services*

The various departments, including the laundry, linen room,

print shop, sewing room, shoe shop, and tailor shop, effectively served the needs of the Hospital.

### *Conclusion*

The policy has been toward a gradual and general improvement in the Hospital services. The effort has been directed toward exposing the patients, as far as possible, to normal life contacts, and to so encourage and promote their return to society.

The administrators of this Hospital were highly appreciative and encouraged by the deep understanding shown by, and the direction received from, the senior officers of the Department of Public Health.

TABLE No. 1

## PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## MOVEMENT OF PATIENT POPULATIONS DURING THE YEAR 1954

	Male Female Totals		
In residence December 31, 1953 .....	958	631	1,589
On leave or otherwise absent .....	21	24	45
On books as of December 31, 1953 .....	979	655	1,634
ADMISSIONS			
First Admissions:	M.	F.	T.
Voluntarily .....	36	38	74
Certified .....	63	47	110
Warrant .....	203	78	281
M.D. Act .....	3	---	3
	305	163	468
Re-Admissions:			
Voluntary .....	27	61	88
Certified .....	14	29	43
Warrant .....	62	46	108
M.D. Act .....	2	3	5
	105	139	244
Transfers in .....	36	22	58
	446	324	770
	1,425	979	2,404
SEPARATIONS			
Discharges:			
Recovered .....	107	43	150
Improved .....	92	134	226
Unchanged .....	106	45	151
	305	222	527
Deaths .....	47	28	75
Transfers out .....	121	108	229
	473	358	831
On the books December 31, 1954 .....	952	621	1,573
On leave or otherwise absent .....	14	16	30
In residence as of December 31, 1954 .....	938	605	1,543

NOTE: "First admissions" in this table are first admissions to this hospital. In Tables 4 and 5, 26 males and 13 females with previous record of hospitalization elsewhere in Canada are not classed as "First admissions."

TABLE No. 2

## PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## PATIENT POPULATION BY PSYCHOSES AS OF DECEMBER 31, 1954

CLASSIFICATION OF MENTAL DISORDERS:	Male	Female	Total
300 SCHIZOPHRENIA DISORDERS			
300.0 Simple .....	13	7	20
300.1 Hebephrenic .....	27	22	49
300.2 Catatonic .....	279	226	505
300.3 Paranoid .....	140	71	211
300.7 Unspecified .....	9	5	14
301 MANIC DEPRESSIVE REACTION			
301.0 Manic and circular .....	27	38	65
301.1 Depressive .....	12	17	29
301.2 Other types .....	---	3	3
302 INVOLUTIONAL PSYCHOSIS .....	3	12	15
303 PARANOID CONDITIONS .....	80	48	128
304 SENILE PSYCHOSIS .....	16	22	38
305 PRESENILE PSYCHOSIS .....	2	4	6
306 WITH CEREBRAL ARTERIOSCLEROSIS .....	30	14	44
307 ALCOHOLIC PSYCHOSIS (Exc. 322) .....	17	3	20
308 PSYCHOSIS OF DEMONSTRABLE ETIOLOGY			
308.0 Brain tumour .....	4	---	4
308.1 Epilepsy (Exc. 353) .....	21	8	29
308.2 Infective and Parasitic .....	1	---	1
308.3 Allergic, endocrine, metabolic and nutritional diseases .....	3	---	3
308.4 Blood and Circulatory systems .....	2	1	3
308.5 Sense and Nervous systems .....	10	1	11
308.6 Drugs and exogenous poisons .....	1	---	1
308.7 Accidents and violence .....	4	1	5
308.8 Other diseases and conditions .....	1	6	7



TABLE No. 2—Continued

PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## PATIENT POPULATION BY PSYCHOSES AS OF DECEMBER 31, 1954

	Male	Female	Total
309 OTHER AND UNSPECIFIED PSYCHOSIS			
309.1 With Psychopathic Personality .....	6	—	6
309.2 With Mental Deficiency .....	51	34	85
309.3 Unspecified (Undiagnosed) .....	15	4	19
PSYCHONEUROTIC DISORDERS:			
310 ANXIETY .....	—	3	3
311 HYSTERICAL REACTION .....	1	1	2
312 PHOBIC REACTION .....	—	1	1
313 OBSESSIVE-COMPULSIVE .....	—	—	—
314 NEUROTIC DEPRESSIVE .....	1	—	1
315 PSYCH. CIRCULATORY SYSTEM .....	—	—	—
316 PSYCH. DIGESTIVE SYSTEM .....	—	1	1
317 PSYCH. OTHER SYSTEMS .....	—	—	—
318 PSYCHONEUROTIC DISORDERS (Mixed) .....	3	1	4
320 PATHOLOGICAL PERSONALITY			
320.0 Schizoid personality .....	—	—	—
320.1 Paranoid personality .....	—	—	—
320.2 Cyclothymic personality .....	—	—	—
320.3 Inadequate personality .....	—	—	—
320.4 Antisocial personality .....	3	—	3
320.5 Asocial personality .....	—	—	—
320.6 Sexual deviation .....	—	—	—
320.7 Other, unspecified .....	4	1	5
321 IMMATURE PERSONALITY			
322 ALCOHOLISM (Exc. 307)			
322.1 Chronic alcoholism .....	7	—	7
323 OTHER DRUG ADDICTION (Exc. 308.6) .....	1	—	1
324 CHILDHOOD BEHAVIOUR DISORDERS			
325 MENTAL DEFICIENCY (Exc. 309.2)			
325.0 Idiocy .....	9	—	9
325.1 Imbecility .....	31	10	41
325.2 Moron .....	15	11	26
325.3 Borderline intelligence .....	—	4	4
325.4 Mongolism .....	—	2	2
325.5 M.D. with epilepsy .....	7	4	11
325.6 Other, unspecified .....	13	7	20
010.1 PSYCHOSIS WITH T.B. OF MENGINES AND CENTRAL NERVOUS SYSTEM			
020.1 CONGENITAL SYPHILIS—Juvenile			
024 TABES DORSALIS			
025 GENERAL PARESIS .....	45	6	51
026.0 OTHER SYPHILIS OF C. N. S. ....	2	2	4
026.1 PSYCHOSIS WITH OTHER SYPHILIS .....	15	—	15
083.1 POSTENCEPHALITIC PER. OISORDERS .....	—	1	1
083.2 POSTENCEPHALITIC PSYCHOSIS .....	1	1	2
353 EPILEPSY (Without psychosis)			
353.0 Petit mal .....	—	—	—
353.1 Grand mal .....	2	—	2
353.2 Other, unspecified .....	—	1	1
648.3 PSYCHOSIS DURING PREGNANCY			
688.1 PUERPERIUM PSYCHOSIS			
900 OTHER CONDITIONS (Not psychotic plus other conditions not listed) .....	1	1	2
930 NOT PSYCHOTIC .....	3	—	3
Totals .....	938	605	1,543

TABLE No. 3

## PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## AGE OF FIRST ADMISSIONS DURING 1954

Age	Male	Female	Total
Under 15 years .....	2	1	3
15 to 19 years .....	11	6	17
20 to 24 years .....	22	12	34
25 to 29 years .....	35	16	51
30 to 34 years .....	32	20	52
35 to 39 years .....	12	20	32
40 to 44 years .....	27	11	38
45 to 49 years .....	24	8	32
50 to 54 years .....	19	9	28
55 to 59 years .....	16	5	21
60 to 64 years .....	13	8	21
65 to 69 years .....	18	4	22
70 to 79 years .....	35	22	57
80 years and over .....	13	8	21
Totals .....	279	150	429

TABLE No. 4

## PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## DISCHARGES BY PSYCHOSES AND CONDITION ON DISCHARGE

## CLASSIFICATION OF MENTAL DISORDERS:

	REC.		IMP.		UNCH.		TOTALS		
	M.	F.	M.	F.	M.	F.	M.	F.	T.
300 SCHIZOPHRENIA DISORDERS									
300.0 Simple .....					1		1		1
300.1 Hebephrenic .....	30	13	33	48	10	4	73	65	138
300.2 Catatonic .....		3	8	4	3	2	11	9	20
300.3 Paranoid .....			1	2	3	1	4	3	7
300.7 Unspecified .....									
301 MANIC DEPRESSIVE REACTION									
301.0 Manic and Circular .....	13	9	4	5	2	1	19	15	34
301.1 Depressive .....	14	6	7	23		2	21	31	52
301.2 Other types .....				1				1	1
302 INVOLUTIONAL PSYCHOSIS .....	1	3	2	15		1	3	18	21
303 PARANOID CONDITIONS .....			9	8	6	2	15	10	25
304 SENILE PSYCHOSIS .....			1	2	3		4	2	6
305 PRESENILE PSYCHOSIS .....									
306 WITH CEREBRAL ARTERIOSCLEROSIS .....	2	1	3	3	5		10	4	14
307 ALCOHOLIC PSYCHOSIS (Exc. 322) .....	32	2	6	1			38	3	41
308 PSYCHOSIS OF DEMONSTRABLE ETIOLOGY									
308.0 Brain tumour .....						1		1	1
308.1 Epilepsy (Exc. 353) .....			2	3			2	3	5
308.2 Infective and Parasitic .....									
308.3 Allergic, endocrine, metabolic and nutritional diseases .....									
308.4 Blood and Circulatory systems .....	1						1		1
308.5 Sense and Nervous systems .....									
308.6 Drugs and exogenous poisons .....	3	1					3	1	4
308.7 Accidents and violence .....	1						1		1
308.8 Other diseases and conditions .....	2			1	1		3	1	4
309 OTHER AND UNSPECIFIED PSYCHOSIS									
309.1 With Psychopathic Personality .....	1						1		1
309.2 With Mental Deficiency .....	1	1		2			1	3	4
309.3 Unspecified (Undiagnosed) .....	4		3	1			7	1	8
PSYCHONEUROTIC DISORDERS									
310 ANXIETY .....			1	6	1	1	2	7	9
311 HYSTERIC REACTION .....	1		4	1	2	1	7	2	9
312 PHOBIC REACTION .....				3				3	3
313 OBSESSIVE-COMPULSIVE .....						1		1	1
314 NEUROTIC DEPRESSIVE .....	1	1	6	2	1		8	3	11
315 PSYCH. CIRCULATORY SYSTEM .....									
316 PSYCH. DIGESTIVE SYSTEM .....				1				1	1
317 PSYCH. OTHER SYSTEMS .....									
318 PSYCHONEUROTIC DISORDERS (Mixed) .....			1	1	1		2	1	3
320 PATHOLOGICAL PERSONALITY									
320.0 Schizoid personality .....					5	2	5	2	7
320.1 Paranoid personality .....					2		2		2
320.2 Cyclothymic personality .....					3	1	3	1	4
320.3 Inadequate personality .....					4		4		4
320.4 Antisocial personality .....									
320.5 Asocial personality .....									
320.6 Sexual deviation .....					2		2		2
320.7 Other, unspecified .....					2	6	2	6	8
321 IMMATURE PERSONALITY .....									
322 ALCOHOLISM (Exc. 307)									
322.1 Chronic alcoholism .....					26	6	26	6	32
323 OTHER DRUG ADDICTION (Exc. 308.6) .....									
324 CHILDHOOD BEHAVIOUR DISORDERS .....					1		1		1

TABLE No. 4—Continued

## PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## DISCHARGES BY PSYCHOSES AND CONDITION ON DISCHARGE

## CLASSIFICATION OF MENTAL DISORDERS:

		REC.		IMP.		UNCH.		TOTALS		T.
		M.	F.	M.	F.	M.	F.	M.	F.	
325	MENTAL DEFICIENCY (Exc. 309.2)									
325.0	Idiocy	---	---	---	---	1	---	1	---	1
325.1	Imbecility	---	---	---	---	1	---	1	---	1
325.2	Moron	---	---	---	---	1	3	1	3	4
325.3	Borderline intelligence	---	---	---	---	1	---	1	---	1
325.4	Mongolism	---	---	---	---	---	---	---	---	---
325.5	M.D. with epilepsy	---	---	---	---	2	3	2	3	5
325.6	Other, unspecified	---	---	---	---	1	---	1	---	1
101.1	PSYCHOSIS WITH T.B. OF MENINGES AND CENTRAL NERVOUS SYSTEM									
020.1	CONGENITAL SYPHILIS—Juvenile									
024	TABES DORSALIS									
025	GENERAL PARESIS			1	---	---	---	1	---	1
026.0	OTHER SYPHILIS OF C. N. S.									
026.1	PSYCHOSIS WITH OTHER SYPHILIS									
083.1	POSTENCEPHALITIC PER. DISORDERS					1	---	1	---	1
083.2	POSTENCEPHALITIC PSYCHOSIS									
353	EPILEPSY (Without psychosis)									
353.0	Petit mal									
353.1	Grand mal					1	3	1	3	4
353.2	Other, unspecified									
648.3	PSYCHOSIS DURING PREGNANCY		1						1	1
688.1	PUERPERIUM PSYCHOSIS		2		2				4	4
900	OTHER CONDITIONS (Not psychotic plus other conditions not listed)					1	---	1	---	1
930	NOT PSYCHOTIC					13	3	13	3	16
Totals		107	43	92	134	106	45	305	222	527

TABLE No. 5

## PROVINCIAL MENTAL HOSPITAL, PONOKA, ALBERTA

## DISCHARGES BY PSYCHOSES AND DURATION OF RESIDENCE, 1954

	Under 3 months		Under 6 months		Under 1 year		Over 1 year		TOTALS		
CLASSIFICATION:	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	T.
Schizophrenia	26	29	31	25	22	12	10	11	89	77	166
Manic Depressive	22	28	13	9	3	9	2	1	40	47	87
Involuntal	1	14		4	1		1		3	18	21
Paranoid Conditions	3	6	5	3	4	1	3		15	10	35
Senile Psychoses	3		1	1		1			4	2	6
Cerebral Arteriosclerosis	7	2	2	1	1		1		10	4	14
Alcoholic Psychoses	28	3	8		1		1		38	3	41
Other Etiology	8	5		1	1		1		10	6	16
Other and Unspecified	6	2	3			1		1	9	4	13
Psychoneuroses	15	15	3	2			1	1	19	18	37
Pathological Personality	13	8	4	1	1				18	9	27
Alcoholism—chronic	21	6	4		1				26	6	32
Childhood Behaviour Disorders	1								1		1
Mental Deficiency	2	4	1	1		1	3	1	6	7	13
General Paresis					1				1		1
Postencephalitic Disorders	1								1		1
Epilepsy	1	3							1	3	4
Psychoses—pregnancy		1								1	1
Puerperium Psychoses		2		1		2				4	4
Other Not Psychotic	1								1		1
Not Psychotic	12	3	1						13	3	16
Totals	171	131	76	49	36	26	22	16	305	222	527

TABLE No. 6

## CAUSES OF DEATH DURING 1954

(Abridged International Classifications)

	Male	Female	Total
3. Syphilis and sequelae	3	---	3
18. Malignant Neoplasms	3	1	4
20. Diabetes Mellitus	1	---	1
22. Vascular lesions—Central Nervous System	6	4	10
26. Arteriosclerosis and degenerative heart diseases	7	11	18
27. Other diseases of the heart	2	1	3
31. Pneumonia	9	5	14
33. Ulcer of stomach and Duodenum	1	---	1
38. Nephritis and Nephrosis	2	1	3
45. Senility, etc., Ill-defined causes	1	2	3
46. All other diseases	12	3	15
Totals	47	28	75



TABLE No. 7

## DEATHS BY PSYCHOSES

	Male	Female	Total
300 Schizophrenia .....	7	4	11
301 Manic Depressive .....	1	1	2
302 Involutional Psychosis .....	1	1	2
303 Paranoid Conditions .....	2	1	3
304 Senile Psychosis .....	10	8	18
305 Presenile Psychosis .....	2	1	3
306 With Cerebral Arteriosclerosis .....	10	5	15
307 Alcoholic Psychosis .....	1	—	1
308 Psychosis of other demonstrable etiology .....	7	3	10
309 Other and unspecified psychosis .....	1	1	2
323 Other drug addiction .....	—	1	1
325 Mental Deficiency .....	1	1	2
025 General Paresis .....	3	—	3
026.1 Psychosis with other syphilis .....	—	1	1
930 Not Psychotic .....	1	—	1
Totals .....	<u>47</u>	<u>28</u>	<u>75</u>

## Provincial Mental Institute, Edmonton

A. D. MACPHERSON, M.D., *Medical Superintendent*

### *Patient Population Changes*

On December 31, 1954, there were in residence 998 male patients and 447 female patients. On leave or otherwise absent were 39 male patients and 40 female patients. The total patient population at the end of the year was 1,037 male patients and 487 female patients. This is a total of 1,524 patients, a gain of 27 over the previous year.

During the year there were 651 admissions. This is an increase of 17 over the previous year. Two of these admissions were juveniles admitted through the Department of Child Welfare.

There were 507 discharges in 1954, an increase of 159 over last year. Forty-one patients were transferred to other mental hospitals and there were 76 deaths (49 autopsies). Fifty-two of the deaths were in the senile group.

### *General Health*

This has been good during the past year. There were no serious epidemics. T.A.B. immunization was carried out on all new admissions and all new staff, and booster doses were given where required. Chest X-rays were done on all new admissions and new staff, and an annual check was carried out on all patients and staff.

### *Accidents*

There were no serious injuries and no accidental deaths during the year.

### *Treatment of Patients*

Electro-shock Therapy was given to 339 patients, and Insulin-shock Therapy to 160. Combined E.S.T. and I.S.T. was given in many cases. Periodic supporting treatment (E.S.T.) was given in a considerable number of cases. The total number of Electro-shock treatments was 4,996, and of Insulin-shock treatments, 6,095. Group therapy was continued and found to be very helpful.

The use of Largactil and Serpasil was begun during the year. So far, the results have been excellent. It is hoped to extend the use of both of these preparations during the coming year.

### *Occupational Therapy*

This department has been very active, as usual. Additional sessions continue to be held on most of the wards. The average daily attendance was 130 patients. Nearly all patients on acute treatment attend this department during the treatment period.

### *Social Service*

The social service worker has continued to be very active both in the investigation of new patients, in the rehabilitation

of discharged patients, and in group therapy and public relations. He gave talks to outside groups and conducted visiting parties, who were interested, through parts of the hospital. He is now in England, doing a year of postgraduate study.

#### *Recreational Activities*

The full-time program has been maintained and activities on the wards have been increased. The Department of Veterans Affairs has continued to provide stage shows, dance orchestras, and tickets to sports events in the city.

#### *Library*

This was added to during the year and has been under the able management of the social worker.

#### *Beauty Parlor*

This has been very active, looking after an average of 15 to 20 patients per day.

#### *Religious Services*

The Lutheran minister continues to be of great help. He holds services every Sunday and, in addition, visits the hospital frequently. The Anglican and the United Churches hold services on alternate Sundays, and the Roman Catholic church continues to hold services once every Sunday. The Jewish and Ukrainian women's organizations visit the patients frequently.

#### *X-Ray Department*

This department was very busy. A total of 4,022 X-ray examinations were made during the year. In addition, short-wave diathermy treatments were carried out. B.C.G.'s and Mantoux tests were also done by the X-ray staff.

#### *Electroencephalograph*

A total of 266 E.E.G.'s, 130 E.C.G.'s, and 37 B.M.R.'s were done during the year. The technician also worked part time at the Provincial Mental Hospital, Ponoka.

#### *Laboratory*

A total of 12,000 examinations were carried out during the year. This is an increase of 10% over the previous year. The laboratory continued to be very busy and a third technician was added during the year.

#### *Surgical Service*

Most of the major operations were done in this hospital, although several orthopaedic cases were referred to the University Hospital. All minor surgery and fracture work was carried out by the staff. A total of 62 operations was performed. This is a considerable increase in the amount of major surgery, and a considerable percentage of this was due to the number of new growths found and abdominal surgery.

#### *Dental Department*

A total of 3,134 treatments was carried out during the year. All types of dental work were done and all patients in the hospital were examined during the year and treatment was done wherever necessary. All patients were examined as soon



as possible after admission. In addition, the dentist did dental work in Rosehaven Hospital, Camrose, and held clinics for dental students from the University of Alberta.

### *Training School*

Nine women and eight men graduated in Psychiatric Nursing in 1954, completing the three-year course. There were 83 students in the various years of the three-year course.

Clinics and demonstrations were given to the students of the graduating classes from all but one of the city hospitals during the year.

### *Department of Building and Maintenance*

Maintenance work has been kept up very well during the year. An extensive re-decorating program was carried out. The nurses' home was opened June 1, and has been a very valuable addition. Work on the admission building was commenced, and the progress has been very satisfactory.

### *Fire Protection*

Fire practices were held at frequent intervals. An inspection was carried out by the Fire Protection Branch. During the year the fire protection system was re-organized. This was laid down by Order-in-Council. A fire chief was appointed and regular training was instituted. The present system appears to be very satisfactory.

### *Farm*

Farm operations were very successful in spite of the bad weather.

### *Garden*

The yield was good, but there was some difficulty in storage due to the wet weather at harvest time. Surplus vegetables were sent to the Aberhart Memorial Sanatorium and to Rosehaven, Camrose, and grain and hay were sent to the Provincial Mental Hospital, Ponoka.

### *Laundry*

New equipment was again added during the year. This department was very busy.

### *Tailor Shop*

This department was also very busy. A great amount of work was done during the year.

### *Shoe Shop*

This department remains very busy and does excellent repair work.

### *Sewing Room.*

This department does very good work.

### *Dietary Department*

This department gives excellent service. New equipment was added in the kitchen and to the ward services during the year.

### *Police Court*

This work has become much heavier this year and takes up a very considerable amount of time of the medical staff. It

requires the services of one member of the medical staff for most of nearly every afternoon.

#### *Business Office*

This office continues to function in its usual efficient manner. The staff is up to strength.

#### *Medical Records Office*

The work of this department is done by a very efficient stenographic staff.

#### *Staff*

The staff situation on both the male and female sides has remained good. There was no difficulty keeping the establishment filled, although we are still short of graduate nurses.

#### *Visitors*

During the year the hospital was visited at frequent intervals by the Hon. Dr. Cross, the Hon. Mr. Taylor, and Dr. MacLean. These visits are always very helpful.

The Visiting Board carried out its annual inspection in the fall, and their visit was very enjoyable.

#### *Public Relations*

Both the social worker and the superintendent addressed various organizations in the city on the work of the hospital and various problems in the psychiatric field. These contacts were very useful.

The fourth-year students from the University of Alberta School of Medicine were given regular clinics during the year.

TABLE No. 1

#### MOVEMENT OF PATIENT POPULATION DURING 1954

	Male	Female	Total	Male	Female	Total
In residence December 31, 1953 .....				996	437	1,433
On leave or otherwise absent .....				34	30	64
Total on books December 31, 1954 .....				1,030	467	1,497
ADMISSIONS:						
First Admissions:						
(a) Voluntary .....	51	22	73			
(b) Medical Certificates .....	80	85	165			
(c) Warrant .....	138	24	162			
(d) Mental Defectives Act .....	11	2	13			
Total .....	280	133	413			
Re-Admissions:						
(a) Voluntary .....	57	33	90			
(b) Medical Certificates .....	17	28	45			
(c) Warrant .....	54	27	81			
(d) Mental Defectives Act .....	6	4	10			
Total .....	134	92	226			
Transfers In .....	9	3	12			
Total Admissions .....	423	228	651			
SEPARATIONS:						
Discharges:						
(a) Recovered .....	99	87	186			
(b) Improved .....	109	60	169			
(c) Unimproved .....	115	37	152			
Total .....	323	184	507			
Transfers Out .....	34	7	41			
Deaths .....	59	17	76			
Total Separations .....	416	208	624			
Total on books December 31, 1954 .....				1,037	487	1,524
On leave or otherwise absent .....				39	40	79
Total in residence on December 31, 1954 .....				998	447	1,445

TABLE No. 2

## PSYCHOSES OF THE PATIENT POPULATION, DECEMBER 31, 1954

	Male	Female	Total
300 SCHIZOPHRENIC DISORDERS			
300.0 Simple Type .....	16	6	22
300.1 Hebephrenic Type .....	52	10	62
300.2 Catatonic Type .....	323	144	467
300.3 Paranoid Type .....	172	50	222
300.4 Acute Schizophrenic Reaction .....	1	1	2
300.5 Latent Schizophrenia .....	2	1	3
300.6 Schizo-Affective Psychosis .....	3	0	3
300.7 Other and Unspecified .....	20	21	41
301 MANIC-DEPRESSIVE REACTION			
301.0 Manic and Circular (Manic Type) .....	15	23	38
301.1 Depressive .....	16	10	26
301.2 Other .....	1	1	2
302 INVOLUTIONAL MELANCHOLIA .....	1	8	9
303 PARANOIA AND PARANOID STATES .....	36	12	48
304 SENILE PSYCHOSIS .....	13	23	36
305 PRESENILE PSYCHOSIS .....	4	3	7
306 PSYCHOSIS WITH CEREBRAL ARTERIOSCLEROSIS .....	12	14	26
307 ALCOHOLIC PSYCHOSIS .....	9	1	10
308 PSYCHOSIS OF OTHER DEMONSTRABLE ETIOLOGY			
308.0 Resulting from Brain Tumor .....	3	1	4
308.1 Resulting from Epilepsy .....	22	11	33
308.3 Due to Endocrine, Metabolic and Nutritional Diseases ....	1	1	2
308.5 Due to Diseases of Nervous System .....	6	0	6
308.7 Due to Accidents and Violence .....	5	0	5
308.8 Secondary or Due to Other Diseases .....	1	0	1
309 OTHER AND UNSPECIFIED PSYCHOSES			
309.1 Psychosis with Psychopathic Personality .....	0	1	1
309.2 Psychosis with Mental Deficiency .....	60	34	94
309.3 Other and Unspecified .....	4	0	4
310 ANXIETY REACTION WITHOUT SOMATIC SYMPTOMS .....	2	4	6
311 HYSTERICAL REACTION .....	0	1	1
314 NEUROTIC-DEPRESSIVE REACTION .....	0	3	3
318 PSYCHONEUROTIC DISORDERS, Mixed and Unspecified .....	2	0	2
320 PATHOLOGICAL PERSONALITY			
320.0 Schizoid Personality .....	1	3	4
320.2 Cyclothymic Personality .....	1	0	1
320.3 Inadequate Personality .....	3	0	3
320.4 Antisocial Personality .....	6	2	8
320.5 Asocial Personality .....	0	1	1
320.6 Sexual Deviation .....	3	0	3
320.7 Other and Unspecified .....	2	0	2
322 ALCOHOLISM			
322.1 Chronic .....	10	3	13
324 PRIMARY CHILDHOOD BEHAVIOUR DISORDERS .....	4	3	7
325 MENTAL DEFICIENCY			
325.0 Idiocy .....	34	16	50
325.1 Imbecility .....	77	41	118
325.2 Moron .....	22	6	28
325.3 Borderline Intelligence .....	2	1	3
325.4 Mongolism .....	3	2	5
325.5 Other and Unspecified .....	23	6	29
326 OTHER AND UNSPECIFIED Character, Behaviour and Intelligence Disorders .....	2	2	4
025 GENERAL PARALYSIS OF THE INSANE .....	26	6	32
026 OTHER SYPHILIS OF CENTRAL NERVOUS SYSTEM			
026.0 Without Psychosis .....	1	0	1
026.1 With Psychosis .....	3	1	4
083 LATE EFFECTS OF ACUTE INFECTIOUS ENCEPHALITIS			
083.1 Postencephalitic Personality and Character Disorder ....	1	1	2
083.2 Postencephalitic Psychosis .....	2	0	2
353 EPILEPSY			
353.1 Grand Mal .....	2	0	2
353.3 Other and Unspecified .....	1	5	6
793 OBSERVATION Without Need for Further Psychiatric Care	2	0	2
900 OTHER CONDITIONS Not Listed .....	4	4	8
	1,037	487	1,524



TABLE No. 3

DISCHARGES CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES  
AND CONDITIONS OF DISCHARGES FOR THE YEAR 1954

		RECOVERED			IMPROVED			UNIMPROVED			TOTAL		
		M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
PSYCHOSES:													
300	SCHIZOPHRENIC DISORDERS												
300.0	Simple Type .....	12	8	20	5	2	7	2	0	2	19	10	29
300.2	Catatonic Type .....	21	24	45	17	18	35	3	4	7	41	46	87
300.3	Paranoid Type .....	2	2	4	1	4	5	2	0	2	5	6	11
300.4	Acute Schizo. Reaction .....	6	2	8	0	3	3	0	0	0	6	5	11
300.5	Latent Schizophrenia .....	3	3	6	3	3	6	1	2	3	7	8	15
300.6	Schizo.-Affective Psych. ....	1	1	2	1	0	1	0	0	0	2	1	3
300.7	Other and Unspecified .....	5	4	9	4	3	7	0	0	0	9	7	16
301	MANIC DEPRESSIVE REACTION (301.0) .....	8	4	12	4	2	6	1	0	1	13	6	19
301.1	Circular .....	2	2	4	1	0	1	0	1	1	3	3	6
302	INVOLUTIONAL MELANCHOLIA .....	3	3	6	4	1	5	2	2	4	9	6	15
303	PARANOIA AND PARANOID STATES .....	0	0	0	3	0	3	0	0	0	3	0	3
304	SENILE PSYCHOSIS .....	0	0	0	0	1	1	2	3	5	2	4	6
306	PSYCHOSIS WITH CEREBRAL ARTERIOSCLEROSIS .....	0	0	0	3	1	4	0	3	3	3	4	7
307	ALCOHOLIC PSYCHOSIS .....	7	2	9	7	0	7	0	1	1	14	3	17
308	PSYCHOSIS OF OTHER DEMONSTRABLE ETIOLOGY												
308.1	Resulting from Epilepsy .....	0	1	1	0	2	2	1	1	2	1	4	5
308.3	Due to Allergic, etc. Diseases .....	0	1	1	4	1	5	2	0	2	6	2	8
308.4	Due to Diseases of Blood .....	0	1	1	1	1	2	0	0	0	1	2	3
308.6	Due to Drugs & other poisons .....	2	0	2	2	0	2	0	0	0	4	0	4
309	OTHER AND UNSPECIFIED PSYCHOSIS												
309.1	Psy. with Psy. Personality .....	0	0	0	1	1	2	2	0	2	3	1	4
309.2	Psy. with Mental Deficiency .....	0	0	0	2	0	2	1	0	1	3	0	3
310	ANXIETY REACTION WITH SOMATIC SYMPTOMS .....	1	1	2	1	1	2	0	0	0	2	2	4
311	HYSTERICAL REACTION .....	0	4	4	0	3	3	0	0	0	0	7	7
314	NEUROTIC DEPRESSIVE REACTION .....	0	5	5	2	1	3	2	1	3	4	7	11
317	PSYCHONEUROSIS WITH SOMATIC SYMPTOMS												
317.3	Other Cutaneous Neuroses .....	2	2	4	0	0	0	0	0	0	2	2	4
318	PSYCHONEUROTIC DISORDERS												
318.1	Depersonalization .....	0	0	0	0	0	0	1	0	1	1	0	1
318.4	Mixed .....	0	0	0	0	0	0	1	0	1	1	0	1
318.5	Other and Unspecified .....	0	0	0	1	0	1	0	0	0	1	0	1
320	PATHOLOGICAL PERSONALITY												
320.0	Schizoid Personality .....	13	4	17	3	1	4	8	4	12	24	9	33
320.1	Paranoid Personality .....	0	1	1	0	0	0	0	0	0	0	1	1
320.3	Inadequate Personality .....	0	1	1	3	1	4	5	0	5	8	2	10
320.4	Antisocial Personality .....	1	1	2	5	1	6	5	2	7	11	4	15
320.5	Asocial Personality .....	1	3	4	2	0	2	3	0	3	6	3	9
320.6	Sexual Deviation .....	0	0	0	2	0	2	2	0	2	4	0	4
320.7	Other and Unspecified .....	0	2	2	0	0	0	0	0	0	2	0	2
321	IMMATURE PERSONALITY .....	2	0	2	0	1	1	0	0	0	2	1	3
322	ALCOHOLISM												
322.1	Chronic .....	0	0	0	25	6	31	54	7	61	79	13	92
324	PRIMARY CHILDHOOD BEHAVIOUR DISORDERS												
325	MENTAL DEFICIENCY												
325.0	Idiocy .....	0	0	0	0	0	0	2	0	2	2	0	2
325.1	Imbecility .....	0	0	0	0	0	0	4	1	5	4	1	5
325.2	Moron .....	0	0	0	1	0	1	3	0	3	4	0	4
325.3	Borderline Intelligence .....	0	0	0	0	0	0	0	1	1	0	1	1
325.4	Mongolism .....	0	0	0	0	0	0	1	1	2	1	1	2
326	OTHER AND UNSPECIFIED CHARACTER, ETC., DIS.												
326.4	Other and Unspecified .....	0	1	1	0	0	0	0	0	0	0	1	1
353	EPILEPSY												
353.1	Grand Mal .....	0	0	0	0	0	0	1	1	2	1	1	2
353.3	Other and Unspecified .....	0	0	0	0	1	1	0	1	1	0	2	2
026	OTHER SYPHILIS OF CENTRAL NERVOUS SYS. ....	0	0	0	0	1	1	0	0	0	1	0	1
083	LATE EFFECTS OF INFECTIOUS ENCEPHALITIS												
083.1	Postencephalitic Personality .....	0	0	0	0	0	0	2	0	2	2	0	2
793	OBSERVATION WITHOUT NEED FOR FURTHER PSYCHIATRIC CARE												
793.0	Observation .....	7	2	9	0	0	0	0	0	0	7	2	9
		99	87	186	109	60	169	115	37	152	323	184	507

TABLE No. 4—DISCHARGES DURING 1954 SHOWING DURATION OF RESIDENCE IN HOSPITAL

PSYCHOSES	Under 3 months			Under 6 months			Under 9 months			Under 12 months			Under 18 months			Under 2 years			Over 2 years			TOTAL		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
300 Schizophrenic Disorders	38	35	73	29	27	56	16	5	21	4	7	11	1	5	6	0	1	1	1	0	1	89	80	169
301 Manic-depressive Reaction	2	3	5	3	2	5	2	2	4	2	0	2	3	2	5	1	0	0	3	0	0	16	9	25
302 Involutional Melancholia	5	3	8	4	0	4	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	9	6	15
303 Paranoia and Paranoid States	1	1	2	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	3	1	4
304 Senile Psychosis	2	1	3	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6
305 Psychosis with Cerebral Arteriosclerosis	1	4	5	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	7
306 Alcoholic Psychosis	8	2	10	6	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	3	17
307 Psychosis of Other Demonstrable Etiology	9	3	12	6	3	9	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	12	8	20
308 Other and Unspecified Psychosis	1	1	2	1	0	1	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	6	1	7
309 Anxiety Reaction without Somatic Symptoms	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
310 Hysterical Reaction	0	4	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
311 Obsessive-Compulsive Reaction	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
313 Neurotic Depressive Reaction	4	7	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	11
314 Psychoneurosis with Somatic Symptoms	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
317 Psychoneurotic Disorders, Mixed and Unspecified	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
318 Pathological Personality	37	16	53	14	3	17	1	2	3	1	0	1	0	0	1	0	0	0	0	0	0	53	21	74
320 Immature Personality	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
321 Alcoholism	71	8	79	6	5	11	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	79	15	94
322 Primary Childhood Behaviour Disorders	2	2	4	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6
324 Mental Deficiency	7	1	8	1	0	1	0	0	1	1	0	1	1	0	1	0	0	0	0	0	0	11	3	14
325 Unspecified Character, Behaviour Disorders	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
326 Epilepsy	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4
026 Other Syphilis of Central Nervous System	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
083 Late Effects of Infectious Encephalitis	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
793 Observation without need for further psychiatric care	5	2	7	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	2
	203	100	303	71	49	120	25	15	40	11	8	19	6	9	15	1	1	2	6	2	8	323	184	507

TABLE No. 5

DEATHS DURING 1954 BY INTERNATIONAL STATISTICS  
CLASSIFICATION

	Male	Female	Total
1 Tuberculosis of Respiratory System .....	3	1	4
3 Syphilis and Sequelae .....	1	0	1
17 All Other Diseases Classified as Infective and Parasitic .....	1	0	1
18 Malignant Neoplasms .....	1	3	4
19 Benign and Unspecified Neoplasms .....	1	0	1
22 Vascular Lesions Affecting Central Nervous System .....	1	0	1
25 Chronic Rheumatic Heart Disease .....	2	0	2
26 Arteriosclerotic and Degenerative Heart Disease .....	6	1	7
27 Other Diseases of Heart .....	30	7	37
31 Pneumonia .....	10	4	14
37 Cirrhosis of Liver .....	0	1	1
38 Nephritis and Nephrosis .....	1	0	1
46 All Other Diseases .....	2	0	2
	<hr/> 59	<hr/> 17	<hr/> 76

TABLE No. 6

DEATHS DURING 1954 BY PSYCHOSES

	Male	Female	Total
300 Schizophrenic Disorders .....	14	5	19
301 Manic Depressive Reaction .....	2	2	4
304 Senile Psychosis .....	10	4	14
305 Alzheimer's Disease .....	1	0	1
306 Psychosis with Arteriosclerosis .....	14	2	16
307 Alcoholic Psychosis .....	1	0	1
308 Psychosis of other Demonstrable Etiology .....	3	2	5
309 Other and Unspecified Psychoses .....	3	0	3
320 Pathological Personality .....	1	0	1
325 Mental Deficiency .....	4	2	6
353 Epilepsy—Grand Mal (353.1) .....	2	0	2
025 General Paralysis of the Insane .....	3	0	3
083 Late Effects of Acute Infectious Encephalitis .....	1	0	1
	<hr/> 59	<hr/> 17	<hr/> 76



## Provincial Auxiliary Mental Hospital, Claresholm

### *Movement of Patients*

There were 99 patients in residence January 1, 1954, and on December 31, 1954, there were 99 patients in residence.

There was one admission under the Mental Defectives Act.

Six patients were transferred to this hospital from the Provincial Mental Hospital, Ponoka.

Six patients were transferred to Ponoka and one patient was transferred to the Provincial Auxiliary Mental Hospital at Raymond.

There was one death during the year due to carcinoma.

### *Accidents or Elopements*

There were no accidents of a serious nature, and no elopements.

### *General Health*

The general health of the patients was very good throughout the year. When necessary, X-Ray and laboratory tests are done at the Claresholm Municipal Hospital. Patients and staff received typhoid vaccine.

### *Occupational Department*

A successful sale of work was held in December. Many local residents attend the display of work and the sale.

During the winter months one staff member conducts classes in the day room. These are the more deteriorated patients, but they do some knitting, embroidery, colouring books, cutting out for scrap books, some simple card games, and some group reading.

During the summer some 20 patients are occupied in the garden and grounds under the supervision of a ward aide.

### *Recreational Activities*

The usual parties were held for the patients, sports day, soft ball games, bingo, and the Christmas parties were enjoyed.

Thirty or forty of the patients were driven around the town to see the Christmas lighting, and then taken to a staff member's home for lunch. This outing was greatly enjoyed by the patients.

Films are now shown at the hospital with the equipment obtained through the Mental Health Grant.

The patients go for daily walks and out on parole. During the warm weather all the patients are taken outside.

The United Church choir sang Easter and Christmas music at the hospital.

### *Beauty Parlour*

Many of the patients get their hair done regularly.

### *Religious Services*

Local clergymen conduct services each Sunday afternoon. Catholic services are held once a month.

*Dentistry*

Dr. Palmer, from the Provincial Mental Hospital, Ponoka, visited the hospital in June and examined the patients and gave the necessary dental care. Emergency dental work is done by local dentists.

*Fire Protection*

The buildings have been inspected by the fire inspector. Fire practices are held and equipment checked regularly.

*Buildings*

The maintenance staff have kept the buildings in good repair.

Some changes in the electrical wiring were done on the recommendation of the electrical inspector.

*Gardens and Grounds*

The vegetable crop was excellent, and there will be enough to provide the hospital until the new crop is ready.

*Visitors*

The hospital has been visited by Dr. R. R. MacLean, Director, Division of Mental Health, and his help and advice are greatly appreciated.

The Eugenics Board, acting as a visiting board, made rounds of the hospital and grounds.

Relatives and friends visited the patients during the year.

TABLE No. 1

## MOVEMENT OF PATIENT POPULATION DURING 1954

ADMISSIONS:	Male	Female	Total	Male	Female	Total
In residence January 1, 1954 .....				0	99	99
On leave or otherwise absent .....				0	1	1
First Admissions:						
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) M.D. Act .....	0	1	1	0	1	1
Re-Admissions:						
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) M.D. Act						
Transfers .....	0	6	6	0	6	6
Total Admissions .....	0	7	7	0	107	107
SEPARATIONS:						
Discharges						
(a) As Recovered						
(b) As Improved						
(c) As Unimproved						
Total Discharges						
Transfers .....	0	7	7			
Deaths .....	0	1	1	0	8	8
				0	99	99
On leave or otherwise absent .....				0	4	4
				0	95	95

TABLE No. 2

## CAUSE OF DEATH

Carcinoma of Cecum. Psychiatric Diagnosis: Paranoid and Paranoid Conditions—Paraphrenia.	SEX	Age	Time in Mental Hospital		
			Years	Months	Days
	Female	63	22	9	14

## Provincial Auxiliary Mental Hospital, Raymond

### *Movement of Patients*

On January 1, 1954, there were 135 patients in residence. There were four transfers received from other mental hospitals and two re-admissions. The departures included three deaths, one discharge, and three transfers to other mental hospitals, leaving in residence on December 31, 1954, 134 patients.

### *General Health*

Two patients developed acute cholecystitis. Two patients developed an active lung tuberculosis and were transferred to Edmonton. One patient haemorrhaged severely from a duodenal ulcer. One patient developed a serious Status Epilepticus with pneumonia. One patient underwent surgery for a Hysterectomy.

### *Occupational Therapy*

There is a separate occupational parlour equipped for all kinds of needlework. The furniture is overstuffed and there is a radio. Other forms of occupation are found in the wards, kitchen, laundry, nurses' home, sewing room, and garden.

### *Library*

The patients' library is situated in the occupational parlour. Books are added to it monthly. All current magazines are available from subscriptions and donations of local friends.

### *Religious Services*

Services are held at the hospital once monthly. The clergymen also preside at patients' funerals when required to do so.

### *Recreation and Entertainment*

A picture show is shown in the ward every other week with hospital-owned equipment. Special holidays are celebrated with a concert, dance, or party. In the summer a sports day is held, as well as picnics on the lawn. A radio and piano are situated in the dayroom of both the main building and the annex.

### *Staff Changes*

One boiler room employee reached retirement. There were no other staff changes.

### *Visitors*

Periodic inspections were made by members of the Department of Public Health, Public Works, Tuberculosis Clinic, Fire Department, Electrical and Boiler Inspectors. The Provincial Visiting Board made their annual visit of inspection.

### *Gardens and Grounds*

The vegetable garden yielded very well, with sufficient produce for summer and winter requirements. Work to reclaim one lawn was started.

### *Conclusion*

The hospital capacity has been maintained throughout the year and the general health of the patients has been satisfactory.



TABLE No. 1

MOVEMENT OF PATIENT POPULATION DURING 1954

	Male	Female	Total	Male	Female	Total
In residence January 1, 1954 .....				0	135	135
ADMISSIONS						
(a) Voluntary .....	0	0	0			
(b) Certificates .....	0	0	0			
(c) Warrant .....	0	0	0			
(d) Order .....	0	0	0			
(e) Transfers .....	0	4	4	0	4	4
				0	139	139
RE-ADMISSIONS						
(a) Voluntary .....	0	1	1			
(b) Certificates .....	0	1	1			
(c) Warrant .....	0	0	0			
(d) Order .....	0	0	0			
(e) Transfers .....	0	0	0	0	2	2
				0	141	141
DISCHARGES						
(a) As Recovered .....	0	0	0			
(b) As Improved .....	0	1	1			
(c) As Unimproved .....	0	0	0			
(d) Transferred to other hospitals .....	0	3	3			
(e) Eloped .....	0	0	0			
(f) Deported .....	0	0	0			
(g) As without psychosis .....	0	0	0			
(h) Deaths .....	0	3	3	0	7	7
				0	134	134
In residence December 31, 1954 .....				0	134	134

TABLE No. 2

DEATHS DURING THE YEAR 1954

SEX	Age	Time in Hospital			CAUSE
		Years	Months	Days	
Female	73	25	10	11	Coronary Thrombosis 1 day; Hypertension and Arterio-sclerosis 15 years.
Female	88	13	4	21	Cerebral Haemorrhage 7 days due to Generalized Arteriosclerosis (25 years) and Senile Dementia.
Female	71	0	2	3	Cerebral Haemorrhage, Fractured Humorous, Senile Dementia, Sub-Acute Cholecystitis.

## Provincial Training School, Red Deer

L. J. LE VANN, M.D., *Medical Superintendent*

### *In Residence, Admissions, Discharges, Deaths*

The population has shown a substantial increase over last year, viz., from 476 to 632. This includes the admission during 1954 of 210, of whom 53 were idiots, 89 imbeciles, and 65 of moron or borderline defective level.

A total of 33 trainees were discharged, many of whom were found employment. Of the total discharges, 16 were discharged to the care of their relatives. There were 13 deaths, five male and eight female. Six males were transferred to the Provincial Mental Institute, and two females to the Provincial Mental Hospital.

### *Applications For Admission*

During the year 129 applications for admission to the School were received. Many urgent admissions were effected from this year's and previous years' lists.

### *Eugenics Board Visits, Sterilizations, etc.*

The School was visited by the Eugenics Board on four occasions. There were 35 trainees presented to the Board, and in conformity with its recommendations, 47 sterilizations were performed, 34 male and 13 female, 12 of these being a carry-over from those presented towards the end of 1953.

### *Health of Trainees and Staff*

The general health situation of both trainees and staff has been of a high level. There was a sporadic outbreak of bacillary dysentery towards the end of the year associated with the admission of a dysentery carrier. Steps to avoid any subsequent situation of this sort by routine examination of stools of all new admissions, in addition to the routine serological checks already being taken, are being carried out.

Prophylactic immunization against diphtheria, whooping cough and the enteric fevers were carried out on all patients, and typhoid immunization was carried out on all new staff members, and re-inforced on incumbent staff members.

The mobile Tuberculosis X-Ray Unit also visited the School, and all ambulant trainees were X-rayed, as well as all staff members. There were no cases of tuberculosis detected.

During the year four of the lower-grade population were clinically confirmed as suffering from active tuberculosis and were transferred to the tuberculosis wing of the Provincial Mental Institute at Oliver.

### *Dental Care*

This is taken care of by the employment of a dentist who spends two mornings each week at the School. This gives adequate dental coverage at the present time, and unless there should be an unforeseen marked increase in the population at this School, the School's requirements are at present fulfilled.

*Training Programme For Nurses and Attendants*

A training programme for all nurses and attendants was carried out during the year, modified to suit the needs of this institution. The emphasis of training was placed this year on ward and bed care (due to the preponderance of the low-grade and bedridden population), and the clinical subjects were reserved for second and third year students.

It is felt this represents an advance on previous years' training, since it is considered that with the fall-out of students during the first year, instruction in routine care is more valuable to both the student and institution.

Clinical subjects given to the second and third year classes were able to be given to these smaller numbers more readily associated with group discussion emphasis. In this way the more interested student could be given a better grounding in the clinical subjects with a greater overall degree of interest.

*Training Programme For Trainees*

Great emphasis continues to be placed on the training programme for the mid and high-grade trainee population at this School.

It is rare to find a child without some aptitude, and the training orientation at this School is to discover the most promising ability of each educable trainee and nurture this ability to its optimal developmental level.

Despite the fact that only 28% of the population of the School is high grade there were, during 1954, 140 children attending school classes daily for academic and sense training activities, and 185 during the year attended daily recreational therapy classes.

The fact that 33 children were discharged from the School this year, making available that number of beds for further trainable children, represents a high level of achievement.

**ACADEMIC TRAINING AND SENSE TRAINING:** This form of training operated very successfully during the past year. Large numbers of children attended regularly and responded enthusiastically to the school work presented. Classes were increased to a maximum of 12 to each class. In the coming year, in an effort to encourage the manual skills, part of the day's training activities will also include manual training. This has been made possible by the appointment of a vocational training instructor. This will lend additional variety to the training programme, and it is anticipated will represent an interesting training incentive to boys and girls alike.

Sense training classes continue to operate with small groups spending two hours per day attending the pre-kindergarten and kindergarten classes.

**RECREATION:** Recreational classes are in operation during the entire day. In this activity are included many mid-grade trainees who find this activity a means of doing something different and interesting as a change from villa life.

This therapy is an excellent means of encouraging and developing inter-personal relationships which are so important



to the development not only of the high-grade retarded child, but the mid-grade as well. Many of these latter can be trained to be excellent workers, several of whom can make good daily outside workers, and a small percentage of whom can ultimately be discharged from the institution altogether.

**OCCUPATIONAL THERAPY:** This department has continued to function well. It was possible this year to employ a fully-trained occupational therapist, and the addition of a trained therapist has further augmented the variety of crafts available for the trainees.

Ceramics equipment and supplies have also been ordered and it is anticipated that early in the new year further diversification in occupational therapy will be brought about.

**VOCATIONAL AND PRE-VOCATIONAL THERAPY:** Whereas in past years vocational training for the boys in farm work and shoemaking was available and made good use of, the employment of a vocational training instructor (to take effect in February, 1955) will add additional vocational training (mainly carpentry) to the lives of the higher-grade boys and girls. This form of training has been standard for many years in other mental hospitals as well as defective institutions.

Training experience continues to be provided in the kitchens, dining rooms, sewing rooms, and laundry, for more trainees who will ultimately be discharged and work found for them away from the School.

**GUIDANCE:** The trainees still avail themselves of the right to seek interviews with any senior staff members to discuss their personal problems and difficulties.

### *Social Work Service*

This service is a pivotal one in effecting discharges and follow-up service after the trainees are discharged from the School. The social worker made 268 visits during the year to trainees and prospective employers as well as ensuring that all trainees placed were contented with their jobs and living circumstances.

### *Extra Social Activities*

The senior members of the School gave many talks to interested organizations on mental deficiency and also mental hygiene, incorporating mental health films.

Members of the School participated in several broadcasts at CKRD, the local broadcasting station. One series, still in progress, is a monthly radio forum dealing with mental hygiene topics and education.

The Red Deer Guidance Clinic has maintained its full scope of activities both with children and adults. In addition to psycho-therapeutic interviews carried on at the Clinic, both Electro-convulsive therapy and modified Insulin therapy have been carried out at the Municipal Hospital.

The "adoption" of children who have no near relatives

continues, and many women's organizations take the trainees for weekly outings and provide them with pocket money.

The formation of a Parent/School Association was begun in October, and was attended by some 200 people.

It is hoped that this organization will further facilitate the home-school atmosphere so needed in order to effectively train defective children, and also provide the parents with the opportunity to meet more often with senior personnel, and the various therapists.

#### *New Construction*

Schoolboys' ward (for occupancy January, 1955).

Two new wards, with a bed capacity of 76 each.

Male staff quarters.

Farm buildings: Chicken house, root cellar, two portable granaries, and bull pen.

Work on new institution: Concrete foundation and floors, water tower, terminal work being completed for sewer and water lines.

#### *Farm and Garden Produce*

The adverse weather which prevailed generally in this part of the Province during the past summer affected the farming operations here, resulting in an abundance of forage and green feed on the one hand, and a shortage of good feed grain on the other.

The vegetable crop of approximately 300 tons was comparatively good in quantity, but slightly poorer in quality due to heavy rains and an early frost.

The dairy herd has now come under the Selective Registration Programme and milk production has been better than average.

#### *Laundry and Linen Repair Room*

The addition of more staff and the staggering of work shifts has extended the operation of the laundry to cope with an increase of approximately 50% in work load over the previous year.

The linen repair room has operated efficiently in their newly completed spacious and well-lighted quarters. A total of 11,859 new articles of linen and clothing have been made, and 235,978 articles of linen and clothing have been repaired.

#### *Kitchen and Dining Room*

These two departments are functioning quite well, providing a varied and nourishing diet for both trainees and staff. The position of dietitian has not been filled as yet, and it would appear that with the large number of special diets required for the varied type of patients that have been admitted during this

past year, a well-qualified incumbent for this position would be a great help in the operation of these departments.

Acknowledgements

The administration of the School would like to thank all the School departments for the marked co-operation and effort shown in continuing the high standard of care and training in relation to the patient population.

In particular, appreciation is expressed to the Honourable Dr. W. W. Cross, Minister of Health, and Dr. Randall R. MacLean, Director, Division of Mental Health, for the understanding and sympathy they have shown to the needs of the School, and the encouragement they have always given, as well as practical help in overcoming any problems which arose during the year. With such co-operation the School could not do other than make forward strides.

TABLE No. 1

MOVEMENT OF FEEBLEMINDED POPULATION

	Male	Female	Total
Defectives on books of Institution as at January 1st, 1954 in Provincial Training School, Red Deer, Alberta	265	211	476
ADMISSIONS:	Male	Female	Total
1. First Admissions—voluntary	100	88	188
2. Re-Admissions	5	12	17
3. Transfers	3	2	5
Total Number of Admissions	108	102	210
Total Number of Defectives on the books during 1954	373	213	686
OUTGOING:			
1. Discharges	14	19	33
2. Transfers (6 M. to P.M.I., 2 F. to P.M.H.)	6	2	8
3. Deaths	5	8	13
Total Number of Outgoing	25	29	54
Defectives on books of the Institution as at December 31, 1954	348	284	632

TABLE No. 2

AGE OF RESIDENT POPULATION CLASSIFIED WITH REFERENCE  
TO MENTAL STATUS

AGE GROUP	IDIOT			IMBECILE			MORON			BORDERLINE			TOTALS		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0 - 4	1	1	2	3	0	3	0	0	0	0	0	0	4	1	5
5 - 9	19	18	37	28	24	52	25	13	38	0	2	2	72	57	129
10 - 14	12	16	28	56	31	87	30	23	53	3	2	5	101	72	173
15 - 19	18	18	36	46	21	67	26	20	46	0	1	1	90	60	150
20 - 24	10	4	14	15	15	30	7	11	18	0	0	0	32	30	62
25 - 29	4	4	8	10	11	21	1	5	6	0	0	0	15	20	35
30 - 34	6	6	12	11	4	15	1	0	1	0	1	1	18	11	29
35 - 39	2	6	8	4	7	11	2	0	2	0	0	0	8	13	21
40 - 44	2	4	6	2	5	7	1	1	2	0	0	0	5	10	15
45 - 49	0	3	3	2	4	6	0	0	0	0	0	0	2	7	9
50 - 54	0	1	1	0	1	1	0	0	0	0	0	0	0	2	2
55 - 59	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1
60 - 64	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1
Totals	75	81	156	178	123	301	93	73	166	3	6	9	349	283	632



TABLE No. 3

MENTAL STATUS OF FIRST ADMISSIONS, RE-ADMISSIONS  
AND TRANSFERS

MENTAL STATUS	First Admissions			Re-admissions			Transfers			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Idiot .....	18	29	47	1	0	1	3	2	5	22	31	53
Imbecile .....	46	39	85	0	4	4	0	0	0	46	43	89
Moron .....	35	20	55	3	7	10	0	0	0	38	27	65
Borderline .....	1	0	1	1	1	2	0	0	0	2	1	3
Totals .....	100	88	188	5	12	17	3	2	5	108	102	210

TABLE No. 4

AGE GROUP OF FIRST ADMISSIONS, RE-ADMISSIONS  
AND TRANSFERS

AGE GROUP	First Admissions			Re-admissions			Transfers			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0 - 4 .....	3	2	5	0	0	0	0	0	0	3	2	5
5 - 9 .....	36	43	79	0	0	0	0	0	0	36	43	79
10 - 14 .....	40	23	63	1	1	2	0	0	0	41	24	65
15 - 19 .....	18	12	30	2	6	8	0	0	0	20	18	38
20 - 24 .....	3	4	7	1	0	1	0	0	0	4	4	8
25 - 29 .....	0	0	0	0	1	1	0	1	1	0	2	2
30 - 34 .....	0	2	2	0	2	2	1	1	2	1	5	6
35 - 39 .....	0	1	1	1	1	2	1	0	1	2	2	4
40 - 44 .....	0	0	0	0	1	1	0	0	0	0	1	1
45 - 49 .....	0	1	1	0	0	0	0	0	0	0	1	1
50 - 54 .....	0	0	0	0	0	0	0	0	0	0	0	0
55 - 59 .....	0	0	0	0	0	0	0	0	0	0	0	0
60 - 64 .....	0	0	0	0	0	0	1	0	1	1	0	1
Totals .....	100	88	188	5	12	17	3	2	5	108	102	210

TABLE No. 5

DEATHS CLASSIFIED WITH REFERENCE TO CAUSE OF DEATH,  
AGE GROUP, MENTAL STATUS, YEARS IN RESIDENCE

CAUSE OF DEATH	Age Group	Idiot			Imbecile			Moron			Years in Res.
		M.	F.	T.	M.	F.	T.	M.	F.	T.	
17. Diseases classified as Infective and Parasitic.	5- 9	0	0	0	1	0	1	0	0	0	3 days
	10-14	0	0	0	1	0	1	0	0	0	2/10
	15-19	0	1	1	0	0	0	0	0	0	1 mo.
	15-19	0	1	1	0	0	0	0	0	0	2 mos.
22. Vascular lesions affecting the Central Nervous System.	35-39	0	1	1	0	0	0	0	0	0	21/6
	35-39	0	0	0	1	0	1	0	0	0	18/5
31. Pneumonia.	5- 9	0	1	1	0	0	0	0	0	0	1/2
	25-29	1	0	1	0	0	0	0	0	0	5 mos.
	30-34	0	0	0	0	1	1	0	0	0	6/5
	45-49	0	1	1	0	0	0	0	0	0	35
37. Cirrhosis of Liver.	20-24	0	0	0	0	1	1	0	0	0	2/10
41. Congenital Malformations.	5- 9	0	0	0	0	1	1	0	0	0	7 mos.
46. All Other Diseases (Status Epilepticus).	10-14	0	0	0	0	0	0	0	1	1	3/6
Totals .....		1	5	6	3	3	6	0	1	1	90/11-3 days

TABLE No. 6

DENTAL CARE

General Anaesthetics .....	92
X-Rays .....	7
Relining of dentures .....	4
Number of dentures made .....	4
Prophylaxis .....	9
Dentures filed to fit .....	8
Extractions .....	446
Fillings, A G .....	109
Fillings, Plastic .....	15
Examinations .....	871

## Rosehaven, Camrose

### *Movement of Residents*

On January 1, 1954, the resident population at Rosehaven numbered 301, of which 203 were men and 98 were women. The total number in residence on December 31, 1954, was 426 — 251 men and 175 women, an increase of 125 during the year.

Admissions to Rosehaven during the year 1954 numbered 219, all transferred from other mental institutions in the Province. One hundred and sixty-six residents were received from the Provincial Mental Hospital, Ponoka; 32 from the Provincial Mental Institute, Edmonton; one from Raymond Auxiliary Hospital, and 20 returned from leave of absence.

Discharges from Rosehaven during 1954 numbered 94. Sixty-one of this number were attributable to death, four to transfers to other institutions, 28 to leave of absence and one to elopement. Eleven residents remained on leave of absence at the end of the year.

Admissions were in the form of transfers from mental institutions in Alberta. In November a new 100-bed unit was ready for occupancy, and 75 female residents were accommodated there by the year's end. Male and female residents were admitted throughout the year as beds were available.

Deaths were due to degenerative causes.

### *General Health*

The general health of the residents is considered good in view of the age group of these individuals. An increasing number require nursing care and marked progressive mental and physical decline is apparent in the majority of the residents.

An average of 36 residents required infirmary bed care each month, and each averaged 12.15 days in bed. There were 41 residents admitted to St. Mary's Hospital for surgical, orthopedical or medical care. The amount of outpatient work done at St. Mary's Hospital from Rosehaven has increased. During the year, 38 X-rays, three cast applications, 198 laboratory tests, and one diagnostic test, were done.

Medical care was supplied by a member of the Smith Clinic at Camrose when the need arose.

Dental examinations were done twice in the year, and dental care given as necessary by the dentist from Provincial Mental Institute, Edmonton.

### *Occupational Therapy*

There has been no organized occupational therapy service at Rosehaven. Individuals have been encouraged to do handiwork and a greater number are interested. Groups of male residents assist with the garden work during the summer.

Sixty-six individuals assist in various departments or with light housekeeping duties.

*Religious Service*

Weekly Protestant church services are arranged by the local Ministerial Association. These are well attended. Roman Catholic services are held several times during the year.

*Recreation*

Walking parties or lawn groups were taken out each day when weather permitted. Films were shown once a month and several parties were arranged during the year. Local organizations arranged outings on several occasions for the residents.

*Buildings*

A new 100-bed unit was completed ready for occupancy in November. A new laundry building has been commenced.

Repairs and maintenance of other buildings has been very satisfactorily carried out.

*Gardens and Grounds*

Established gardens and grounds show little change and have been well maintained. Excavation and building has hampered any extensive landscaping measures in the area of the new constructions. The vegetable garden produced a small amount of fresh vegetables in season.

*Staff*

Twelve nursing and attendant staff members resigned during the year and were replaced, three domestic staff resigned and were replaced. Additional staff has been required with the opening of the new unit. Two graduate nurses, 16 attendants or ward aides, and five domestic and sewing room staff have been added to the complement.

The health of the staff has been satisfactory.

*Visitors*

Officials of the Department of Public Health visited during the year, and regular visits were made to Rosehaven by the Director of Mental Health.

The Eugenics Board as a visiting committee made its annual visit.

MOVEMENT OF POPULATION DURING 1954

TABLE No. 1

	Male	Female	Total	Male	Female	Total
In residence January 1, 1954 .....				203	98	301
ADMISSIONS:						
From P.M.H., Ponoka .....	82	84	166			
From P.M.I., Edmonton .....	28	4	32			
From Raymond .....	0	1	1			
Returned L.O.A. ....	11	9	20			
	121	98	219	121	98	219
DISCHARGES:				324	196	520
To P.M.H., Ponoka .....	0	1	0			
To St. Joseph's, Edmonton .....	3	0	4			
On L.O.A. ....	18	10	28			
Eloped .....	1	0	0			
Deaths .....	51	10	61			
	73	21	94	73	21	94
Total in residence December 31, 1954 .....				251	175	426



TABLE No. 2

## CLASSIFICATION OF MENTAL DISORDERS

300	SCHIZOPHRENIC DISORDERS	
300.00	Simple	1
300.1	Hebephrenic	6
300.2	Catatonic	34
300.3	Paranoid	34
301	MANIC DEPRESSIVE REACTION	
301.0	Manic and Circular	11
301.1	Depressive	4
301.2	Other types	2
302	INVOLUTIONAL PSYCHOSIS	3
303	PARANOIA AND PARANOID STATES	44
304	SENILE PSYCHOSES	147
306	PSYCHOSIS WITH CEREBRAL ARTERIOSCLEROSIS	75
307	ALCOHOLIC PSYCHOSIS (Exc. 322)	3
308	PSYCHOSIS OF DEMONSTRABLE ETIOLOGY	
308.1	Epilepsy (Exc. 353)	4
308.4	Of blood and circulatory system	1
308.5	Of sense and nervous system	1
308.7	Of accidents and violence (traumatic)	2
309	OTHER AND UNSPECIFIED PSYCHOSIS	
309.2	Psychosis with Mental Deficiency	6
309.3	Unspecified (undiagnosed)	1
	PSYCHONEUROTIC DISORDERS	
311	HYSTERICAL REACTION	1
322	ALCOHOLISM (Exc. 307)	
322.1	Chronic	1
325	MENTAL DEFICIENCY (Exc. 309.1)	2
325.1	Imbecility	2
325.2	Moron	1
325.6	Unspecified	2
025	GENERAL PARALYSIS OF INSANE	4
026	PSYCHONEUROSIS WITH OTHER SYPHILIS OF C. N. S.	3
930	NOT PSYCHOTIC	31

TABLE No. 3

## RECORD OF DEATHS IN 1954

Sex	Age	Years in Institution			CAUSE OF DEATH
		Years	Months	Days	
F	84	5	7	0	Coronary occlusion, fracture right femur
M	90	0	10	15	Pulmonary edema, congestive heart failure, broncho-pneumonia
M	74	0	1	11	Cerebral apoplexy, hypertension
M	83	3	11	20	Cerebral apoplexy, hypertension
M	73	0	0	7	Pulmonary edema, benign hypertension
M	71	0	0	11	Gastric haemorrhage, broncho-pneumonia
M	83	5	7	22	Coronary occlusion, shock post fracture rt. femur
M	72	1	6	28	Broncho-pneumonia, epilepsy
M	80	6	0	21	Gastric haemorrhage
M	76	5	7	23	Coronary occlusion
M	76	1	11	0	Pulmonary embolism
M	83	0	2	28	Broncho-pneumonia
F	92	2	0	17	Congestive heart failure, arteriosclerotic heart disease
M	80	1	1	24	Broncho-pneumonia, uraemia, fracture left hip
M	75	2	4	18	Coronary thrombosis, coronary sclerosis
M	74	2	4	20	Pulmonary edema, coronary heart disease
M	74	4	1	19	Coronary thrombosis
M	77	5	2	15	Coronary sclerosis with senility, cancer penis gr. IV
M	74	1	8	15	Coronary thrombosis
M	75	0	8	23	Coronary occlusion, arteriosclerotic heart
M	78	2	0	9	Deep thrombo phlebitis
M	74	2	0	15	Coronary occlusion
M	78	1	0	27	Myocardial failure, coronary sclerosis
M	88	5	10	4	Coronary sclerosis
F	84	4	0	5	Broncho-pneumonia, congestive heart failure
M	70	0	5	14	Myocardial failure, coronary sclerosis
M	77	1	9	3	Myocardial failure, coronary thrombosis
M	84	1	1	15	Myocardial failure, coronary sclerosis
F	77	5	7	18	Heart failure, fracture right femur
M	80	3	6	28	Myocardial failure, Diabetes Melitus
F	73	3	2	0	Myocardial failure due to coronary sclerosis and senility
M	73	2	2	1	Cerebral apoplexy, cerebral sclerosis
M	78	2	1	22	Cerebral apoplexy, hypertension and arteriosclerosis
M	82	0	6	21	Hypostatic pneumonia
M	84	2	3	29	Myocardial failure, coronary sclerosis
M	82	5	1	2	Coronary sclerosis, myocardial failure
F	90	4	5	26	Myocardial failure, coronary sclerosis
M	75	0	9	29	Myocardial failure
M	79	2	3	6	Pneumonia, pulmonary congestion
M	71	0	8	3	Myocardial failure, coronary sclerosis
F	84	2	0	4	Myocardial failure, coronary sclerosis, old fracture femur
M	69	0	8	20	Congestive heart failure
M	74	0	1	22	Coronary occlusion
M	71	0	9	0	Cerebral haemorrhage
M	71	2	5	10	Esophageal obstruction, carcinoma lung or lung abscess
M	76	5	9	3	Hematemesis and Cachexia

Sex	Age	Years in Institution			CAUSE OF DEATH
		Years	Months	Days	
M	77	6	6	18	Respiratory failure, cerebral haemorrhage
M	73	2	2	4	Uraemia, prostate hypertrophy
M	74	2	6	17	Pneumonia
M	74	0	9	3	Cachexia, cancer of prostate
M	76	0	10	25	Broncho-pneumonia, cerebral-vascular accident
M	80	0	2	2	Coronary occlusion
F	87	6	0	15	Coronary occlusion
M	78	0	10	30	Broncho-pneumonia, supra-pubic prostatectomy
M	71	1	5	12	Pneumonia, cerebral vascular accident
F	75	6	9	24	Coronary thrombosis
M	76	0	5	21	Broncho-pneumonia, prolonged debility
M	100	5	0	0	Extreme old age, myocardial failure
M	86	6	10	13	Cerebral-vascular accident
M	72	0	11	0	Broncho pneumonia, Cachexia, cerebral-vascular accident
F	79	6	2	7	Myocardial failure, coronary sclerosis

TABLE No. 4

### CLASSIFICATION OF DEATHS ACCORDING TO PSYCHIATRIC DIAGNOSIS 1954

SENILE DEMENTIA .....	33
PSYCHOSIS WITH ARTERIOSCLEROSIS .....	6
MANIC DEPRESSIVE .....	5
SCHIZOPHRENIA—CATATONIC .....	2
SCHIZOPHRENIA—PARANOID .....	4
PARANOIA AND PARANOID CONDITIONS .....	1
MENTAL DEFECTIVES .....	3
GENERAL PARESIS OF THE INSANE .....	2
NOT PSYCHOTIC .....	5
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## Blood Transfusion Service

M. J. TUTTLE, M.D., F.R.C.P.(C), *Calgary*

D. I. BUCHANAN, M.B., Ch.B., D.P.H., *Edmonton*

### *Blood Donations*

The year 1954 has been a most successful one. For the first time since the Blood Transfusion Service began operating in this Province, well over 50,000 blood donations were received from voluntary donors.

The actual number of donations received was 54,330, representing a 17% increase — or nearly 8,000 more than in 1953. Of the total, 28,161 bottles of blood were collected in the north, and 26,169 in the south.

### *Blood Transfusions*

It is interesting to note that well over 100,000 patients have received whole blood transfusions supplied from the Alberta depots since July 17, 1947. (Actual recipients of whole blood were 105,099 patients. Total blood transfusions administered were 182,161 bottles between July, 1947, and December 31, 1954.)

During 1954 the number of whole blood transfusions administered in Alberta hospitals, and in hospitals in adjoining areas of B.C., the N.W.T., and in the Yukon, amounted to 32,315. A total of 17,461 patients received these transfusions during this 12-month period.

### *Plasma Fractionation Programme*

Liquid plasma from the Edmonton and Calgary depots continues to be shipped in the maximum amounts that we can contribute to this essential project. A total of 779 pools of liquid plasma were sent to the Connaught Laboratories, Toronto, during 1954. Of this number, 369 four-litre pools were prepared in Edmonton, and 410 in Calgary.

In addition, 3,605 bottles of blood were shipped direct from the two depots.

The plasma or serum derived from these sources can be most effectively used as gamma globulin, and serum albumin. Another fraction, fibrinogen, is also obtained from plasma.

We feel that the demand for serum albumin will increase as this most valuable fraction becomes available from Red Cross and Connaught Laboratory resources.

### *Rh. Investigations (Maternity cases, etc.)*

A total of 34,312 of these specimens were tested in 1954 — 21,704 in the Edmonton depot, and 12,608 in Calgary.

Of these specimens, 389 (290 in Edmonton and 99 in Calgary) were found to contain immune antibodies.



*New Buildings*

A new Blood Transfusion Service Depot was officially opened in July, 1954, in Edmonton, replacing the old depot which had been housed in the wartime huts near the airport.

The new building was built by the Government of Alberta specifically for this work.

The keys of the building were presented by Dr. A. Somerville, Deputy Minister of Health, on behalf of the Honourable Dr. W. W. Cross. At this ceremony Dr. W. S. Stanbury, National Commissioner of the Canadian Red Cross Society, stated that the depot was probably one of the finest in the world.

The two new buildings in Edmonton and Calgary (the latter opened the previous year) are of great practical advantage to the steadily growing Service.







**ANNUAL REPORT**  
OF THE  
**Vital Statistics Branch**  
OF THE  
DEPARTMENT OF PUBLIC HEALTH  
PROVINCE OF ALBERTA  
1954



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# VITAL STATISTICS DIVISION

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This is the 1954 Report of the Vital Statistics Division of the Department of Public Health of the Province of Alberta and is the 50th report published since the establishment of the Province.

The report shows a large increase in the number of births, a small increase in marriages and a decrease in the number of deaths. The birth rate is the second highest in the Dominion, the marriage rate the highest and the death rate the lowest. There is a decrease in deaths from communicable diseases, and especially Poliomyelitis, Influenza and Pneumonia. A slight increase is shown in the number of deaths from Heart Disease and Cancer.

## POPULATION

The population of the Province for the year 1954 has been estimated by the Dominion Bureau of Statistics as 1,039,000. All rates in this report are therefore based on that figure.

## BIRTHS

There were 33,593 children born to residents of the Province during 1954, an increase of 2,217 over the previous year. The birth rate being 32.3 per 1,000 population. Of the total births 17,394 were males, 16,199 were females, the ratio being 1,073 males to each 1,000 females. Multiple births comprised 380 sets of twins and 3 sets of triplets. Illegitimate births numbered 1,562, being 4.6 percent of all live births.

The number of births to residents of the four large cities are as follows: Edmonton 7,269, Calgary 4,774, Lethbridge 898, Medicine Hat 522. During the year 966 Legal Adoptions were filed, 858 Delayed Registrations of Birth completed, 258 Legal Changes of surname and 568 changes in Christian names were filed. The births of 79 children were legitimated by the subsequent marriage of the parents.

The following shows the birth rates for Canada and certain other countries for 1954:

## BIRTH RATES

Canada .....	28.7	United States .....	24.9
Newfoundland .....	34.3	Australia .....	22.5
Prince Edward Island .....	25.9	New Zealand .....	24.7
Nova Scotia .....	28.1	Denmark .....	17.4
New Brunswick .....	30.4	Finland .....	21.3
Quebec .....	30.4	France .....	18.7
Ontario .....	27.0	Italy .....	17.6
Manitoba .....	26.9	Austria .....	14.7
Saskatchewan .....	28.5	Norway .....	18.6
Alberta .....	32.3	Netherlands .....	21.6
British Columbia .....	26.0	Portugal .....	22.6
England & Wales .....	15.2	Spain .....	20.0
Scotland .....	18.0	Sweden .....	14.6
Northern Ireland .....	20.8	Switzerland .....	17.0
Ireland (Rep.) .....	21.1	Western Germany .....	15.7

## DIVORCES

Final Decrees of Divorces granted during the year numbered 608, being 5 more than in the previous year. Four Decrees of Nullity were also granted.

## MARRIAGES

There were 9,960 marriages registered during the year, being 166 less than the previous year and 505 more than the average of the preceding five years. The marriage rate of 9.6 per 1,000 population is the highest in Canada. Of the Bridegrooms 138 were 18 years of age or under, 4,891 were between the ages of 19 and 24 and 20 were 75 years old or over. Of the Brides 296 were 16 years of age or under, 6,862 were between the ages of 17 and 24 years and 6 were 75 years or over. Nine thousand and ninety-nine of the Grooms were bachelors, 370 were widowers and 491 were divorced. Eight Thousand Nine Hundred and Fifty of the Brides were spinsters, 529 widows and 481 divorced. The number of marriages in the four large cities were as follows: Edmonton 2,899, Calgary 2,093, Lethbridge 405, Medicine Hat 279. The Marriage rate for Canada, the Provinces and certain other countries were as follows:

## MARRIAGE RATES

Canada .....	8.5	United States .....	9.2
Newfoundland .....	7.4	Australia .....	7.9
Prince Edward Island .....	5.8	New Zealand .....	8.6
Nova Scotia .....	7.8	Denmark .....	8.1
New Brunswick .....	7.8	Finland .....	7.8
Quebec .....	8.1	France .....	7.2
Ontario .....	8.9	Italy .....	7.3
Manitoba .....	8.3	Netherlands .....	8.3
Saskatchewan .....	7.9	Austria .....	7.8
Alberta .....	9.6	Norway .....	7.8
British Columbia .....	8.7	Portugal .....	7.9
England and Wales .....	7.7	Spain .....	8.0
Scotland .....	8.2	Sweden .....	7.2
Northern Ireland .....	6.5	Switzerland .....	7.8
Ireland (Rep.) .....	5.4	Western Germany .....	8.6

## DEATHS

There were 7,520 deaths registered during the year, 301 of these were Indians. The total deaths comprise 4,778 males and 2,742 females. There were 126 deaths less than the previous year and the rate is 7.2 per 1,000 population as compared with 7.6 for 1953. At the time of death 665 males and 545 females were 80 years of age and over.

The number of deaths to residents of the Four large cities were as follows: Edmonton 1,416, Calgary 1,342, Lethbridge 190, Medicine Hat 174. The actual number of deaths which occurred in these cities were as follows: Edmonton 1,913, Calgary 1,480, Lethbridge 262, Medicine Hat 208.

Diseases of the Heart again was the chief cause of death and accounted for 2,345 deaths as compared with 2,274 for the previous year. The rate being 225.7 per 100,000 population compared with 227.0 for the previous year.

Cancer deaths increased to 1,164 from 1,129 for the previous year, the rates being 112.0 and 112.7 respectively.

Deaths from Tuberculosis, all forms, numbered 63 and includes 16 Indians. Pulmonary Tuberculosis caused 45 deaths and of these 10 were Indians. The rate for Tuberculosis, all forms, being 6.0 per 100,000 population.

Poliomyelitis deaths declined sharply from last year's total of 108 to 28. Influenza from 33 to 14 and Pneumonia, all forms, from 324 to 253.

Violent and accidental deaths totaled 746 comprising deaths from 210 Motor Vehicle accidents, 204 traffic accidents, 66 transport accidents, 24 accidental poisonings, 102 accidental falls, 33 accidents caused by machinery, 37 accidents caused by fire and explosion of combustible material, 6 accidents caused by hot substances, corrosive liquid, steam and radiation,



15 accidents caused by firearms, 37 accidental drownings, 93 all other accidents, 107 suicides, 15 homicides and injury resulting from operations of war I.

The Death rates for Canada, the Provinces and certain other countries are as follows:

### DEATH RATES

Canada .....	8.2	United States .....	9.2
Newfoundland .....	7.3	Australia .....	9.1
Prince Edward Island .....	9.2	New Zealand .....	9.0
Nova Scotia .....	8.5	Denmark .....	9.1
New Brunswick .....	7.8	Netherlands .....	7.5
Quebec .....	7.6	Finland .....	9.1
Ontario .....	8.8	France .....	11.9
Manitoba .....	8.1	Italy .....	9.0
Saskatchewan .....	7.2	Austria .....	12.1
Alberta .....	7.2	Norway .....	8.4
British Columbia .....	9.8	Portugal .....	10.9
England and Wales .....	11.3	Spain .....	9.1
Scotland .....	12.0	Sweden .....	9.6
Northern Ireland .....	10.9	Switzerland .....	10.0
Ireland (Rep.) .....	12.1	Western Germany .....	10.4

### MATERNAL DEATHS

Deaths from peurperal causes numbered 11 and the rate of 0.3 is the lowest rate for Canada.

### MATERNAL DEATH RATES PER 1,000 LIVE BIRTHS

Ontario .....	0.5	Canada .....	0.7
Manitoba .....	0.5	Newfoundland .....	1.6
Saskatchewan .....	0.9	Prince Edward Island .....	0.7
Alberta .....	0.3	Nova Scotia .....	0.5
British Columbia .....	0.4	New Brunswick .....	0.7
		Quebec .....	1.1

### INFANT DEATHS

The number of children who died under one year of age numbered 882, a decrease of 48 from the previous year. Five hundred and ten were males and 372 females. Of the total deaths 558 were under the age of 28 days. The infant death rate is 26 per 1,000 live births as compared with 30 for the previous year.

### INFANT MORTALITY RATES PER 1,000 LIVE BIRTHS

Canada .....	32	United States .....	27
Newfoundland .....	41	Australia .....	(1953) 23
Prince Edward Island .....	35	New Zealand .....	20
Nova Scotia .....	30	Denmark .....	(1953) 27
New Brunswick .....	40	Finland .....	31
Quebec .....	40	France .....	37
Ontario .....	26	Italy .....	53
Manitoba .....	29	Netherlands .....	21
Saskatchewan .....	28	Austria .....	(1953) 50
Alberta .....	26	Norway .....	(1952) 24
British Columbia .....	26	Portugal .....	86
England and Wales .....	26	Spain .....	52
Scotland .....	31	Sweden .....	18
Northern Ireland .....	33	Switzerland .....	(1953) 30
Ireland (Rep.) .....	38	Western Germany .....	43

There were 418 Stillbirths registered, a decrease of 58 from the previous year. Of these 235 were males and 183 females, the rate being 12.4 per 1,000 live births.

# DIVISIONS OF ALBERTA FOR CENSUS AND VITAL STATISTICS PURPOSES

As the Province of Alberta is not divided into Counties, and the political divisions are not permanently fixed, it has been found advisable to use smaller areas, the Dominion Census Divisions.

The Province is divided into 17 census divisions. These divisions are further subdivided into organized municipal areas. These municipal areas, which were each originally within the boundaries of a single census division, have been reorganized by the Provincial authorities into larger units, and now, in many cases, part of the new municipality or improvement district is in one census division and part in another.

The following table shows the census divisions divided into municipalities, improvement districts, cities, towns and villages with the 1951 and 1941 division population figures.

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES  
FOR CENSUS YEARS, 1941 AND 1951

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
<b>ALBERTA</b> .....	<b>939,501</b>	<b>796,169</b>	<b>Division No. 2—Continued:</b>		
Rural .....	451,313	489,583	Villages:		
Urban .....	488,188	306,586	Coaldale .....	806	290
<b>Division No. 1</b> .....	<b>35,879</b>	<b>29,595</b>	Cowley .....	119	125
Rural .....	14,033	16,408	Frank .....	239	204
1. I.D. ....	250	370	Stirling .....	520	437
2. Burlington .....	2,186	3,084	<b>Division No. 3</b> .....	<b>17,132</b>	<b>15,518</b>
4. Warner .....	3,445	3,617	Rural .....	12,001	12,151
11. I.D. ....	2,251	3,312	21. I.D. ....	1,605	2,412
13. Bow Island .....	1,740	2,435	22. I.D. ....	702	637
14. Eureka .....	3,909	3,323	23. I.D. ....	1,459	1,359
25. Barons (pt.) .....	252	267	28. Newell (pt.) .....	6,310	5,475
Urban .....	21,846	13,187	34. Acadia (pt.) .....	19	9
Cities:			Army Experimental Range .....	394	309
Medicine Hat .....	16,364	10,571	Berry Creek-Sullivan Lake		
Towns:			Area (pt.) .....	598	752
Bow Island .....	653	291	Bow West Area (pt.) .....	700	867
Irvine .....	224	240	Vulcan No. 2 (pt.) .....	214	331
Taber .....	3,042	1,331	Urban .....	5,131	3,367
Villages:			Towns:		
Burdett .....	118	123	Bassano .....	624	582
Foremost .....	375	.....	Brooks .....	1,648	888
Grassy Lake .....	167	.....	Redcliff .....	1,538	1,111
Milk River .....	481	335	Villages:		
Warner .....	422	296	Duchess .....	258	149
<b>Division No. 2</b> .....	<b>71,480</b>	<b>58,563</b>	Empress .....	411	341
Rural .....	31,618	29,725	Enchant .....	.....	76
5. Sugar City .....	5,038	4,749	Jenner .....	.....	27
6. Cochrane .....	3,475	4,233	Tilley .....	259	193
8. I.D. ....	39	2	Vauxhall .....	393	.....
9. Pincher Creek .....	3,149	3,363	<b>Division No. 4</b> .....	<b>28,984</b>	<b>29,383</b>
10. I.D. ....	4,828	4,149	Rural .....	19,124	22,315
16. Bright .....	2,231	2,427	25. Barons (pt.) .....	3,866	3,920
25. Barons (pt.) .....	8,843	6,693	26. Argyle (pt.) .....	1,602	1,803
26. Argyle (pt.) .....	1,139	1,516	27. I.D. (pt.) .....	83	107
27. I.D. (pt.) .....	83	162	31. Highwood .....	4,916	4,921
Waterton Lakes Nat. Park .....	238	269	32. Turner Valley (pt.) .....	4,088	6,175
Indian Reserves .....	2,555	2,162	33. I.D. ....	31	28
Urban .....	39,862	28,838	Bow West Area (pt.) .....	524	766
Cities:			Vulcan No. 2 (pt.) .....	3,850	4,595
Lethbridge .....	22,947	14,612	Indian Reserves .....	164	.....
Towns:			Urban .....	9,860	7,068
Blairmore .....	1,933	1,731	Towns:		
Cardston .....	2,487	1,864	High River .....	1,888	1,430
Claresholm .....	1,608	1,265	Nanton .....	934	718
Coleman .....	1,961	1,870	Okotoks .....	767	591
Granum .....	327	238	Stavely .....	327	273
Macleod .....	1,860	1,912	Vulcan .....	1,040	732
Magrath .....	1,320	1,207			
Pincher Creek .....	1,456	994			
Raymond .....	2,279	2,089			

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES  
FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
<b>Division No. 4—Continued:</b>			<b>Division No. 6—Continued:</b>		
Villages:			Villages—Continued:		
Arrowwood .....	222	251	Standard .....	237	212
Barons .....	369	233	Swalwell .....	...	114
Black Diamond .....	1,154	890	Trochu .....	630	480
Blackie .....	224	223			
Carmangay .....	285	229	<b>Division No. 7 .....</b>	<b>32,334</b>	<b>33,285</b>
Cayley .....	139	133	Rural .....	22,612	26,116
Champion .....	378	320	52. Provost .....	3,610	4,716
Lomond .....	153	129	53. Paintearth .....	3,073	4,160
Milo .....	141	129	61. Wainwright (pt.) .....	3,583	4,755
Nobleford .....	255	111	62. Flagstaff .....	6,129	7,804
Picture Butte .....	865	...	73. Beaver (pt.) .....	1,235	1,518
Turner Valley .....	719	676	Berry Creek-Sullivan Lake		
			Area (pt.) .....	101	147
<b>Division No. 5 .....</b>	<b>16,129</b>	<b>18,926</b>	Sounding Creek-Neutral		
Rural .....	12,328	15,560	Hills Area (pt.) .....	2,173	3,012
34. Acadia (pt.) .....	686	739	Buffalo Nat. Park .....	2,708	4
42. I.D. (pt.) .....	2,642	2,353	Urban .....	9,722	7,169
47. Starland .....	2,472	3,289	Towns:		
Berry Creek-Sullivan Lake			Castor .....	798	625
Area (pt.) .....	3,252	4,658	Coronation .....	738	581
Sounding Creek-Neutral Hills			Hardisty .....	536	457
Area (pt.) .....	3,186	4,521	Wainwright .....	1,996	980
Urban .....	3,891	3,366	Villages:		
Towns:			Alliance .....	281	233
Hanna .....	2,027	1,622	Cadogan .....	...	99
Villages:			Chauvin .....	340	343
Cereal .....	135	142	Consort .....	396	265
Chinook .....	116	142	Czar .....	123	139
Craigmyle .....	136	186	Edgerton .....	309	258
Delia .....	278	315	Forestburg .....	443	231
Morrin .....	226	216	Galahad .....	198	145
Munson .....	78	139	Hughenden .....	218	164
Oyen .....	433	326	Irma .....	369	273
Rumsey .....	110	90	Killam .....	465	347
Youngstown .....	352	188	Lougheed .....	186	195
			Monitor .....	...	82
<b>Division No. 6 .....</b>	<b>195,352</b>	<b>146,990</b>	Provost .....	676	518
Rural .....	50,436	46,679	Sedgewick .....	485	320
28. Newell (pt.) .....	671	668	Strome .....	276	233
32. Turner Valley (pt.) .....	67	84	Veteran .....	206	190
40. Bow Valley .....	2,941	3,462	Viking .....	683	491
41. I.D. .....	155	212			
42. I.D. (pt.) .....	4,292	4,011	<b>Division No. 8 .....</b>	<b>73,997</b>	<b>67,630</b>
43. Serviceberry .....	3,091	3,706	Rural .....	43,965	49,293
44. Conrich .....	5,509	4,273	54. Stettler .....	6,007	7,167
45. Springbank .....	5,014	3,241	55. Red Deer (pt.) .....	6,753	7,792
46. I.D. .....	6,364	3,598	63. Camrose .....	10,895	12,236
48. Kneehill .....	7,263	8,135	64. Lacombe (pt.) .....	6,307	6,583
49. Mountain View .....	8,933	9,800	66. Ponoka (pt.) .....	5,850	6,448
50. I.D. .....	1,067	1,085	73. Beaver (pt.) .....	383	562
51. Banff Nat. Park .....	2,856	2,545	74. Wetaskiwin (pt.) .....	6,216	7,263
Indian Reserves .....	2,213	1,859	Indian Reserves .....	1,554	1,242
Urban .....	144,916	100,311	Urban .....	30,032	18,337
Cities:			Cities:		
Calgary .....	129,060	88,904	Red Deer .....	7,575	2,924
Drumheller .....	2,601	2,748	Wetaskiwin .....	3,824	2,318
Towns:			Towns:		
Didsbury .....	1,180	892	Camrose .....	4,131	2,598
Gleichen .....	430	435	Daysland .....	475	438
Olds .....	1,617	1,337	Innisfail .....	1,417	1,223
Strathmore .....	704	560	Lacombe .....	2,277	1,603
Three Hills .....	1,026	706	Ponoka .....	2,574	1,306
Villages:			Stettler .....	2,442	1,295
Acme .....	275	285	Villages:		
Airdrie .....	267	191	Alix .....	461	360
Beiseker .....	325	240	Bashaw .....	603	494
Bowness .....	2,922	...	Bawlf .....	236	227
Carbon .....	374	409	Big Valley .....	307	291
Carstairs .....	468	371	Bittern Lake .....	25	50
Cluny .....	202	138	Blackfalds .....	154	113
Cochrane .....	530	298	Botha .....	98	111
Crossfield .....	443	409	Clive .....	241	224
Forest Lawn .....	1,079	899	Delburne .....	395	308
Hussar .....	120	116	Donalda .....	318	206
Irricana .....	180	172	Edberg .....	188	152
Langdon .....	...	95	Elnora .....	211	195
Rockyford .....	246	201	Erskine .....	...	172
Rosebud .....	...	99	Ferintosh .....	205	169



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FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
<b>Division No. 8—Continued:</b>			<b>Division No. 11—Continued:</b>		
Villages—Continued:			Rural—Continued:		
Gadsby .....	128	141	90. Sturgeon (pt.) .....	6,365	5,115
Gull Lake .....	32	21	91. Morinville (pt.) .....	3,307	3,542
Halkirk .....	148	118	93. Lac Ste. Anne (pt.) .....	4,999	5,654
Ma-Me-O Beach .....	98		Elk Island Nat. Park .....	55	50
Millet .....	402	325	Indian Reserves .....	1,014	997
Mirror .....	635	570	Urban .....	180,495	99,793
New Norway .....	258	169	Cities:		
Ochaton .....		53	Edmonton .....	159,631	93,817
Penhold .....	174	183	Towns:		
<b>Division No. 9</b>	<b>31,627</b>	<b>32,232</b>	Beverly .....	2,159	981
Rural .....	27,306	29,045	Devon .....	842	
55. Red Deer (pt.) .....	5,653	5,735	Fort Saskatchewan .....	1,076	903
56. Waterloo .....	1,237	1,402	Jasper Place .....	9,139	
57. Raven .....	2,366	2,254	Leduc .....	1,842	871
58. I.D. ....	66	94	Morinville .....	892	580
64. Lacombe (pt.) .....	2,482	2,670	St. Albert .....	1,129	697
65. I.D. ....	4,145	4,307	Stony Plain .....	878	566
66.. Ponoka (pt.) .....	3,163	3,576	Tofield .....	692	551
68. I.D. ....	226	257	Villages:		
69. I.D. ....	1,223	1,234	Alberta Beach .....	79	59
76. I.D. (pt.) .....	3,398	3,877	Calmar .....	944	
79. I.D. (pt.) .....	1,166	2,017	Hay Lakes .....	231	154
80. Jasper Nat. Park .....	1,899	1,622	Lakeview .....	15	
Indian Reserves .....	282		Onoway .....	189	156
Urban .....	4,321	3,187	Sangudo .....	269	173
Towns:			Seba Beach .....	103	84
Rimbey .....	757	410	Thorsby .....	385	
Rocky Mtn. House .....	1,147	800	Wabamun .....		201
Sylvan Lake .....	985	805			
Villages:			<b>Division No. 12</b>	<b>17,704</b>	<b>17,431</b>
Bentley .....	439	279	Rural .....	14,907	15,497
Bowden .....	277	234	77. I.D. ....	1,325	1,821
Eckville .....	379	135	78. I.D. ....	1,511	1,875
North Red Deer .....		524	79. I.D. (pt.) .....	2,826	1,862
Sundre .....	337		93. Lac Ste. Anne (pt.) .....	2,208	2,484
<b>Division No. 10</b>	<b>50,016</b>	<b>58,807</b>	94. Pembina .....	2,688	3,462
Rural .....	37,780	49,982	95. I.D. ....	2,561	2,560
61. Wainwright (pt.) .....	269	425	96. I.D. ....	229	85
71. Vermilion River (pt.) .....	9,817	11,869	108. I.D. (pt.) .....	114	106
72. Minburn .....	5,909	7,052	109. I.D. (pt.) .....	1,343	1,209
73. Beaver (pt.) .....	3,032	3,683	110. I.D. (pt.) .....	32	33
81. Eagle .....	10,094	14,483	Urban .....	2,833	1,934
82. Lamont .....	8,569	12,740	Towns:		
Urban .....	12,236	8,825	Edson .....	1,956	1,499
Towns:			Villages:		
Lloydminster (pt.) .....	1,706	572	Entwistle .....		218
Mundare .....	596	756	Mayerthorpe .....	472	217
Vegreville .....	2,223	1,696	Wildwood .....	405	
Villages:			<b>Division No. 13</b>	<b>30,152</b>	<b>33,172</b>
Andrew .....	625	326	Rural .....	26,775	30,805
Bruderheim .....	387	237	71. Vermilion River (pt.) .....	434	587
Chipman .....	180	240	85. I.D. ....	289	512
Derwent .....	283	171	86. St. Paul .....	8,941	10,122
Hairy Hill .....	205		87. Bonnyville .....	1,474	1,867
Holden .....	504	361	88. Glendon .....	1,547	1,965
Innisfail .....	287	253	89. Smoky Lake (pt.) .....	3,282	4,837
Islay .....		132	101. I.D. ....	5,601	6,259
Kitscoty .....	235	234	102. I.D. (pt.) .....	2,791	2,745
Lamont .....	637	438	103. I.D. (pt.) .....	23	52
Lavoy .....	122	178	Indian Reserves .....	2,393	1,859
Mannville .....	528	396	Towns:		
Minburn .....	186	289	Bonnyville .....	1,139	603
Myrnam .....	388	216	St. Paul .....	1,407	1,018
Ranfurly .....		129	Villages:		
Ryley .....	406	323	Bellis .....		128
Two Hills .....	525	210	Elk Point .....	453	311
Willington .....	281	420	Vilna .....	378	311
<b>Division No. 11</b>	<b>226,199</b>	<b>149,193</b>	<b>Division No. 14</b>	<b>46,791</b>	<b>47,899</b>
Rural .....	45,704	49,400	Rural .....	39,254	44,526
73. Beaver (pt.) .....	2,439	2,997	89. Smoky Lake (pt.) .....	6,775	9,884
74. Wetaskiwin (pt.) .....	56	39	90. Sturgeon (pt.) .....	2,430	3,166
75. Leduc .....	11,108	12,741	91. Morinville (pt.) .....	2,504	2,838
76. I.D. (pt.) .....	1,458	1,479	92. Westlock .....	9,797	10,469
83. Strathcona .....	6,982	6,725	93. Lac Ste. Anne (pt.) .....	2,629	3,006
84. Stony Plain .....	7,921	10,061	102. I.D. (pt.) .....	2,619	2,639

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES  
FOR CENSUS YEARS, 1941 AND 1951—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1951	1941		1951	1941
<b>Division No. 14—Continued:</b>			<b>Division No. 16</b>	<b>32,439</b>	<b>30,349</b>
Rural—Continued:			Rural	25,631	26,349
103. Athabasca	7,799	7,922	133. Spirit River	1,406	1,828
107. I.D.	3,112	3,166	134. I.D.	2,568	2,372
108. I.D. (pt.)	1,072	1,098	135. Peace	1,741	2,003
122. I.D.	469	348	136. Fairview	2,031	2,326
Indian Reserves	48	—	138. I.D. (pt.)	1,663	1,610
Urban	7,537	3,373	139. I.D.	3,007	2,740
Towns:			Grande Prairie No. 1	10,198	11,181
Athabasca	1,068	578	Indian Reserves	101	161
Barrhead	1,243	399	Urban	6,808	4,000
Lac La Biche	905	517	Towns:		
Redwater	1,306	—	Fairview	929	432
Westlock	1,111	590	Grande Prairie	2,664	1,724
Villages:			Villages:		
Clyde	219	160	Beaverlodge	514	331
Legal	523	462	Berwyn	288	206
Radway	184	—	Clairmont	—	102
Smoky Lake	491	430	Grimshaw	564	169
Thorhild	248	—	Hythe	342	247
Waskatenau	239	237	Rycroft	372	—
<b>Division No. 15</b>	<b>21,663</b>	<b>17,484</b>	Sexsmith	331	325
Rural	16,963	16,020	Spirit River	553	276
108. I.D. (pt.)	771	917	Wembley	251	188
109. I.D. (pt.)	170	160	<b>Division No. 17</b>	<b>11,587</b>	<b>9,712</b>
110. I.D. (pt.)	41	75	Rural	10,996	9,712
111. I.D. (pt.)	313	267	102. I.D. (pt.)	—	3
123. I.D.	—	15	121. I.D. (pt.)	310	224
124. I.D.	2,934	2,545	128. I.D.	593	365
125. I.D.	3,150	3,044	129. I.D.	502	335
126. I.D.	2,138	1,687	131. I.D. (pt.)	179	51
130. I.D.	4,195	4,327	137. I.D.	124	45
131. I.D. (pt.)	2,185	1,829	138. I.D. (pt.)	2,547	1,970
Indian Reserves	1,066	1,154	143. I.D.	1,158	2,316
Urban	4,700	1,464	144. I.D.	115	37
Towns:			145. I.D.	158	90
High Prairie	1,141	—	146. I.D.	754	279
McLennan	1,074	—	147. I.D.	1,589	1,378
Peace River	1,672	873	148. I.D.	—	12
Villages:			149. I.D.	39	67
Falher	575	244	Wood Buffalo Nat. Park	36	42
Grouard	—	347	Indian Reserves	2,862	2,507
Kinuso	238	—	Urban	621	—
111. I.D. (pt.)	11	18	Towns:		
132. I.D.	2,905	2,110	McMurray	621	—

TABLE 1: GENERAL SUMMARY OF VITAL STATISTICS FOR CENSUS DIVISIONS,  
ALBERTA, 1954

CENSUS DIVISIONS	Live Births			Live Births in Hospital	Illegitimate Births	Stillbirths	Marriages	Total Deaths	Deaths			
	Total	Male	Female						Hospital	Infant	Neo-natal	Maternal
ALBERTA	33593	17394	16199	31765	1562	418	9960	7520	4874	882	558	11
Division No. 1	1229	620	609	1191	23	16	369	289	171	27	17	
Division No. 2	2430	1250	1180	2125	99	33	800	542	353	71	48	
Division No. 3	576	304	272	553	8	3	90	97	61	14	9	
Division No. 4	988	524	464	965	31	15	150	272	165	25	18	
Division No. 5	454	228	226	417	17	7	83	102	66	5	5	1
Division No. 6	6941	3648	3293	6848	344	90	2537	1813	1211	194	135	1
Division No. 7	994	507	487	819	26	14	207	271	162	31	20	1
Division No. 8	2599	1327	1272	2457	95	38	740	591	407	56	45	2
Division No. 9	808	415	393	656	30	10	182	200	119	21	11	
Division No. 10	1247	642	605	1207	40	9	363	324	209	24	16	1
Division No. 11	9695	5017	4678	9599	474	105	3276	1860	1325	216	133	1
Division No. 12	577	288	289	531	27	9	103	154	77	23	13	
Division No. 13	1118	577	541	1022	67	17	215	234	138	45	23	
Division No. 14	1406	717	689	1316	57	17	320	316	194	38	21	1
Division No. 15	999	512	487	886	122	15	174	155	90	44	22	2
Division No. 16	1134	604	530	976	36	16	272	228	106	27	14	1
Division No. 17	398	214	184	197	66	4	79	72	20	21	8	

TABLE 2: GENERAL SUMMARY OF VITAL STATISTICS FOR INCORPORATED URBAN  
PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1954

City, Town or Village	Live births			Live Births in Hospital	Illegitimate Births	Stillbirths	Marriages	Total Deaths	Deaths			
	Total	Male	Female						Hospital	Infant	Neo-natal	Maternal
Athabasca	43	17	26	43	3	1	35	13	10	2	2	
Barrhead	58	29	29	58	4		50	21	13	1	1	
Beverly	134	69	65	134	7		8	12	10	3	3	
Black Diamond	39	22	17	39	2		8	8	5			
Blairmore	62	25	37	60	2		15	16	14	4	2	
Bonnyville	80	40	40	78	1	1	35	14	10	4	2	
Bowness	185	93	92	184	10	3	22	19	13	4	2	
Brooks	84	35	49	80	4	1	28	13	9	3	2	
Calgary	4774	2517	2257	4770	238	67	2093	1342	915	130	106	
Camrose	186	106	80	186	4	3	102	54	42	3	2	
Cardston	86	44	42	60	1		134	25	8	7	7	
Claresholm	99	55	44	98	1	1	33	17	15	1	1	
Coldman	78	47	31	73		1	14	33	23	1	1	
Didsbury	36	20	16	35	2		33	11	8			
Drumheller	129	66	63	129	4	1	73	28	15			
Edmonton	7269	3747	3522	7263	390	84	2899	1416	1056	157	101	
Edson	111	58	53	111	4	2	37	38	27	6	3	
Forest Lawn	76	43	33	76	2	1	6	14	11	5	3	
Fort Saskatchewan	72	40	32	71	3	1	21	23	13			
Grande Prairie	193	99	94	189	5	3	100	31	15	4	1	
Hanna	74	43	31	74	4	1	35	19	12	2	2	
High Prairie	91	49	42	90	14	1	35	14	11	4	2	
High River	45	21	24	45	3	1	45	42	26			
Innisfail	52	29	23	48	1		28	23	16	3	3	
Jasper Place	548	304	244	547	22	4	12	50	35	14	8	
Lacombe	82	42	40	81	1		54	31	23	4	4	
Leduc	90	42	48	90	3	1	36	13	9	1	1	
Lethbridge	898	452	446	891	32	11	405	190	133	20	17	
Lloydminster	107	59	48	107	6		78	10	8			
Macleod	81	38	43	78	2	2	34	41	29	1	1	
Magrath	37	19	18	19			15	12	8	3	2	
McLennan	31	14	17	31	4	1	19	4	1	1		
Medicine Hat	522	267	255	522	15	5	279	174	115	11	7	
Olds	78	43	35	76	5	1	46	20	14	4	2	
Peace River	131	72	59	122	11	1	48	18	14	7	5	
Pincher Creek	61	36	25	58		1	30	20	9	4	3	
Ponoka	115	54	61	115	6	2	57	29	19	2	1	
Raymond	76	34	42	47	1	3	24	10	5			
Redcliff	44	18	26	44	1		18	14	9	2	1	
Red Deer	423	208	215	422	17	2	183	59	43	6	6	1
Redwater	85	50	35	84	1	6	11	8	8	2	1	
Rocky Mountain House	60	28	32	45	1	2	37	19	10	1	1	
St. Albert	44	27	17	44	1	1	5	25	8			1
St. Paul	80	48	32	75	3	1	60	20	14	2	2	
Stettler	166	84	82	164	6	2	58	30	25	6	5	
Taber	141	65	76	140	4	1	50	31	9	4	3	
Three Hills	60	29	31	52		3	22	17	11	2	1	
Vegreville	78	38	40	78	3		41	28	19	2	2	
Vermilion	82	41	41	81	3	1	44	24	19	4	3	
Vulcan	46	22	24	46	1		21	9	5			
Wainwright	109	57	52	95	5		45	26	16	5	3	
Westlock	63	28	35	63	2		38	20	10	3	2	
Wetaskiwin	137	65	72	132	4	5	82	53	36	2	2	



TABLE 3: DEATHS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, 1954

PLACE OF OCCURRENCE	Total (occurrence)	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	U.S.A.	Other
Total (residence) .....	125480	2916	966	5692	4286	33169	44515	6719	6323	7520	12414	85	242	578	55
Newfoundland .....	2916	2896	3	1	1	2	1	1	1	1	1	1	1	2	9
Prince Edward Island .....	951	937	4	4	2	1	1	1	1	1	1	1	1	3	1
Nova Scotia .....	5712	9	9	5641	15	5	7	1	1	1	1	1	1	20	5
New Brunswick .....	4372	7	17	4192	76	11	1	1	1	1	1	1	1	64	1
Quebec .....	32968	5	7	5	29	32703	116	2	1	4	5	3	1	74	14
Ontario .....	44764	3	4	11	17	289	44036	32	22	13	23	1	1	306	7
Manitoba .....	6759	1	1	1	1	60	6578	58	14	12	1	1	1	25	3
Saskatchewan .....	6323	1	1	1	1	3	19	50	6154	43	34	1	1	12	7
Alberta .....	7537	1	1	1	1	5	12	7	41	7368	54	6	14	22	6
British Columbia .....	12368	1	1	1	1	6	13	15	25	46	12207	6	1	47	3
Yukon .....	81	1	1	1	1	1	2	1	1	1	1	1	1	3	1
Northwest Territories .....	223	1	1	1	1	1	1	1	1	1	1	1	1	1	1
United States .....	506	2	1	9	27	79	236	34	17	28	73	1	1	1	1

TABLE 4: DEATHS AND HOSPITAL DEATHS BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1954

CENSUS DIVISIONS	TOTAL DEATHS				DEATHS IN HOSPITALS			
	Total by occurrence	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere	Total By Occurrence,	Total by residence	By occurrence, residence elsewhere	By residence, occurrence elsewhere
ALBERTA .....	7537	7520	169	152	4889	4874	101	86
Division No. 1 .....	277	289	34	46	155	171	22	38
Division No. 2 .....	561	542	86	67	380	353	74	47
Division No. 3 .....	76	97	13	34	39	61	7	29
Division No. 4 .....	183	272	17	106	75	165	2	92
Division No. 5 .....	71	102	12	43	32	66	4	38
Division No. 6 .....	1886	1813	228	155	1272	1211	173	112
Division No. 7 .....	229	271	14	56	124	162	10	48
Division No. 8 .....	680	591	187	98	494	407	165	78
Division No. 9 .....	160	200	29	69	77	119	18	60
Division No. 10 .....	250	324	16	90	145	209	13	77
Division No. 11 .....	2181	1860	442	121	1671	1325	404	58
Division No. 12 .....	130	154	23	47	39	77	3	41
Division No. 13 .....	198	234	16	52	100	138	9	47
Division No. 14 .....	248	316	18	86	128	194	11	77
Division No. 15 .....	122	155	16	49	54	90	4	40
Division No. 16 .....	222	228	29	35	94	106	15	27
Division No. 17 .....	63	72	8	17	10	20	1	11

TABLE 5: DEATHS AND HOSPITAL DEATHS BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1954

City, Town or Village	Total Deaths				Deaths in Hospitals			
	Total by Occurrence	Total by Residence	By Occurrence, Residence, Elsewhere	By Residence Occurrence Elsewhere	Total by Occurrence	Total by Residence	By Occurrence, Residence, Elsewhere	By Residence Occurrence Elsewhere
Athabaska .....	36	13	26	3	26	10	17	1
Barrhead .....	32	21	19	8	27	13	19	5
Beverley .....	3	12	1	10	.....	10	.....	10
Black Diamond .....	3	8	.....	5	.....	5	.....	5
Blairmore .....	3	16	1	14	1	14	1	14
Bonnyville .....	26	14	16	4	21	10	14	3
Bowness .....	4	19	.....	15	.....	13	.....	13
Brooks .....	28	13	16	1	23	9	15	1
Calgary .....	1480	1342	289	151	1062	915	247	100
Camrose .....	137	54	91	8	121	42	85	6
Cardston .....	28	25	9	6	6	8	1	3
Claresholm .....	28	17	18	7	26	15	17	6
Coleman .....	6	33	.....	27	1	23	.....	22
Didsbury .....	30	11	21	2	23	8	17	2
Drumheller .....	65	28	48	11	53	15	46	8
Edmonton .....	1913	1416	626	129	1588	1056	593	61
Edson .....	50	38	19	7	33	27	12	6
Forest Lawn .....	4	14	2	12	.....	11	.....	11
Fort Saskatchewan .....	8	23	1	16	.....	13	.....	13
Grande Prairie .....	66	31	42	7	36	15	24	3
Hanna .....	28	19	13	4	23	12	13	2
High Prairie .....	36	14	27	5	28	11	22	5
High River .....	56	42	21	7	40	26	21	7
Innisfail .....	40	23	18	1	32	16	17	1
Jasper Place .....	17	50	5	38	.....	35	.....	35
Lacombe .....	49	31	28	10	37	23	23	9
Leduc .....	5	13	2	10	.....	9	.....	9
Lethbridge .....	262	190	96	24	206	133	89	16
Lloydminster .....	1	10	.....	9	.....	8	.....	8
Macleod .....	40	41	9	10	27	29	7	9
Magrath .....	14	12	4	2	10	8	4	2
McLennan .....	19	4	15	.....	10	1	9	.....
Medicine Hat .....	208	174	49	15	150	115	45	10
Olds .....	36	20	21	5	30	14	20	4
Peace River .....	21	18	8	5	16	14	6	4
Pincher Creek .....	25	20	10	5	15	9	9	3
Ponoka .....	106	29	86	9	97	19	83	5
Raymond .....	15	10	7	2	11	5	7	1
Redcliff .....	4	14	.....	10	.....	9	.....	9
Red Deer .....	89	59	40	10	75	43	38	6
Redwater .....	.....	8	.....	8	.....	8	.....	8
Rocky Mountain House .....	30	19	16	5	22	10	15	3
St. Albert .....	20	25	3	8	.....	8	.....	8
St. Paul .....	31	20	18	7	25	14	16	5
Stettler .....	55	30	28	3	48	25	25	2
Taber .....	29	31	8	10	5	9	1	5
Three Hills .....	19	17	7	5	11	11	5	5
Vegreville .....	38	28	16	6	30	19	16	5
Vermilion .....	32	24	11	3	27	19	11	3
Vulcan .....	17	9	12	4	14	5	12	3
Wainwright .....	32	26	13	7	24	16	12	4
Westlock .....	51	20	37	6	40	10	35	5
Wetaskiwin .....	72	53	29	10	57	36	26	5

TABLE 6: CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS,  
(Including Cities, Towns and Villages)  
IN ALBERTA, 1954

CAUSE OF DEATH (Intermediate List)	Sex	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
			No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>ALL CAUSES</b>	Total	7520	289	542	97	272	102	1813	271	591	200	324	1860	154	234	316	155	228	72
	Male	4778	184	325	61	184	73	1108	166	374	146	210	1191	109	146	196	100	157	48
	Female	2742	105	217	36	88	29	705	105	217	54	114	669	45	88	120	55	71	24
<b>I. INEFFECTIVE AND PARASITIC DISEASES.</b>	Total	165	5	11	4	3	37	3	14	3	40	3	12	9	9	7	5		
	Male	95	2	8	3	2	19	2	6	3	26	3	6	4	4	3	4		
	Female	70	3	3	1	1	18	1	8	1	14	1	6	5	5	4	1		
A 1 Tuberculosis of respiratory system	Male	26	1	3	1	6	1	1	2	8	3	1	2	1	2	1	1		
	Female	19	2	1	1	7	1	1	1	2	1	1	1	1	1	1	1		
A 2 Tuberculosis of meninges and central nervous system	Male	2																	
	Female	5																	
A 3 Tuberculosis of intestines, peritoneum and mesenteric glands	Male	1																	
	Female																		
A 4 Tuberculosis of bones and joints	Male	1			1														
	Female	1																	
A 5 Tuberculosis, all other forms	Male	4																	
	Female	4																	
A 6 Congenital syphilis	Male	2																	
	Female	2																	
A 9 Tabes dorsalis	Male	5																	
	Female	5																	
A 10 All other syphilis	Male	6		1															
	Female																		
A 12 Typhoid fever	Male																		
	Female	1																	
A 13 Paratyphoid fever and other Salmonella infections	Male	1																	
	Female																		
A 16 Dysentery, all forms	Male	2																	
	Female	4																	
A 17 Scarlet fever	Male																		
	Female																		
A 18 Streptococcal sore throat	Male	2																	
	Female																		
A 20 Septicaemia and pyaemia	Male	7																	
	Female	6	1	1															
A 21 Diphtheria	Male	2																	
	Female	5		2															
A 22 Whooping cough	Male	2		1															
	Female	7																	
A 23 Meningococcal infections	Male	1																	
	Female	15	1	2		1		1	2	1	4	1	1	1	1	1	2	1	
A 28 Acute poliomyelitis	Male	13		1		1		1											
	Female	1																	
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis	Male	2																	
	Female	4																	
A 32 Measles	Male	2																	
	Female	4																	
A 34 Infectious hepatitis	Male	2																	
	Female	2																	
A 39 Hydatid disease	Male	1																	
	Female																		
A 43 All other diseases classified as infective and parasitic	Male	3			1														
	Female	2																	
<b>II. NEOPLASMS</b>	Total	1164	41	80	18	37	15	304	37	94	32	60	297	22	30	45	15	30	7
	Male	685	24	52	11	17	10	183	20	57	18	38	159	12	20	28	10	21	5
	Female	479	17	28	7	20	5	121	17	37	14	22	138	10	10	17	5	9	2
A 44 Malignant neoplasm of buccal cavity and pharynx	Male	7		1				3		1			2						
	Female	5	1	1				2					1						
A 45 Malignant neoplasm of oesophagus	Male	8						2		2			2						
	Female	110	2	14	1	3		26	3	11	4	3	25	4	2	3	4	4	1
A 46 Malignant neoplasm of stomach	Male	63	1	3		1	1	14	3	5	2	6	17	3	2	3	1	1	1
	Female	64	4	3		2		15	1	7	2	5	19	2	2	1	1	1	1
A 47 Malignant neoplasm of intestine, except rectum	Male	52	1			4	1	14	3	4	3	1	18						
	Female	36	2	3	1	1		10	3	1		1	8		5				
A 48 Malignant neoplasm of rectum	Male	9		1				2					5						
	Female	7			2		1												
A 49 Malignant neoplasm of larynx	Male	1																	
	Female																		
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Male	97	3	7	2			29	2	5	2	11	17	3	4	5		6	1
	Female	13					1	3	1			2	5		1				



TABLE 6: CAUSE OF DEATH BY SEX FOR CENSUS DIVISIONS  
(Including Cities, Towns and Villages)  
IN ALBERTA, 1954

CAUSE OF DEATH (Intermediate List)	Sex	Total	Division No. 1	Division No. 2	Division No. 3	Division No. 4	Division No. 5	Division No. 6	Division No. 7	Division No. 8	Division No. 9	Division No. 10	Division No. 11	Division No. 12	Division No. 13	Division No. 14	Division No. 15	Division No. 16	Division No. 17
A 51 Malignant neoplasm of breast	Male	1						1											
	Female	87	3	6	2	3		27	5	5	2	3	21	2	1	3		4	
A 52 Malignant neoplasm of cervix uteri	Female	34	1	5	1			10		3	2		8			3	1		
A 53 Malignant neoplasm of other and unspecified parts of uterus	Female	19	2	1				7		2		1	3			1		2	
A 54 Malignant neoplasm of prostate	Male	80	2	5	1	3	4	26	2	6	1	3	21		2	1		3	
A 55 Malignant neoplasm of skin	Male	8				1	1						3					1	1
	Female	2						1											
A 56 Malignant neoplasm of bone and connective tissue	Female	9			1			1	1	1	1		3		1				
	Female	4			2	1													
A 57 Malignant neoplasm of all other and unspecified sites	Male	175	6	13	3	5	2	47	3	12	7	10	42	2	6	8	4	4	1
	Female	136	7	6	1	6	2	31	4	13	4	5	43	2	4	3	2	2	1
A 58 Leukaemia and aleukaemia	Male	37	3	3	1	1	1	12	1	1	1	1	8	1	1	2	1		
	Female	26		2	1	2		6	1				9	1					
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	Male	38	2	2			1	7	4	9		2	8		1	1	1		
	Female	17	1			3		2		3		1	6	1					
Hodgkin's disease	Male	10						1	2	3		1	2			1			
	Female	2						1				1	1						
A 60 Benign neoplasms and neoplasms of unspecified nature	Male	8						3				1	1			1		1	1
	Female	9								1	1	3	2						
III, IV. ALLERGIC DISORDERS AND ENDOCRINE METABOLIC AND BLOOD DISEASES.	Total	216	15	17	2	6	4	44	14	15	4	6	52	4	13	11	5	4	
	Male	104	9	6	2	3	3	23	9	8	2	3	25		3	3	3	2	
	Female	112	6	11		3	1	21	5	7	2	3	27	4	10	8	2	2	
A 61 Nontoxic goitre	Male																		
	Female	1												1					
A 62 Thyrotoxicosis with or without goitre	Male	1								1									
	Female	11		1			1	1	1				2	2	1	2			
A 63 Diabetes mellitus	Male	50	6	3		2		12	4	3	1	2	11		1	2	2	1	
	Female	62	5	7				13	3	5		2	15	1	6	3	2		
A 64 Avitaminosis and other deficiency states	Male	1											1						
	Female	3								1			2						
A 65 Anaemias	Male	9	1	2						2			2			1		1	
	Female	5	1										2					2	
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases	Male	43	2	1	2	1	3	11	5	2	1	1	11		2		1		
	Female	30		3		3		7	1	1	2	1	6		3	3			
V. MENTAL, PSYCHONEUROTIC, AND PERSONALITY DISORDERS.	Total	25		1	2		2	4	2			1	10				3		
	Male	19		1	2		2	3	2			1	7				1		
	Female	6						1					3				2		
A 67 Psychoses	Male	6			1		1	1	1				1				1		
	Female	2						1					1						
A 68 Psychoneuroses and disorders of personality	Male	8		1	1		1	1				1	3						
	Female	1											1						
A 69 Mental deficiency	Male	5						1	1				3						
	Female	3											1				2		
VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.	Total	926	44	68	11	38	13	224	23	86	17	34	239	18	27	43	12	25	4
	Male	538	25	37	8	25	8	118	15	50	12	15	135	13	21	26	10	18	2
	Female	388	19	31	3	13	5	106	8	36	5	19	104	5	6	17	2	7	2
A 70 Vascular lesions affecting central nervous system	Male	481	24	35	7	20	8	108	13	45	10	14	120	12	18	21	7	18	1
	Female	361	18	27	3	12	5	102	8	33	5	17	96	5	6	16	1	5	2
A 71 Nonmeningococcal meningitis	Male	7								1			2						
	Female	3		1				1					1						
A 72 Multiple sclerosis	Male	3						2				1							
	Female	6		1				2				1	2						
A 73 Epilepsy	Male	9	1			1			1	2			1		2		1		
	Female																		
A 77 Otitis media and mastoiditis	Male	4				1							2		1				
	Female																		
A 78 All other diseases of the nervous system and sense organs	Male	34		2	1	3		8	1	2	1		10			4	1	1	
	Female	18	1	2		1		1		3		1	5			1	1	2	
VII. DISEASES OF THE CIRCULATORY SYSTEM.	Total	2604	111	170	25	102	37	660	107	202	81	135	623	54	58	103	33	90	13
	Male	1760	80	102	13	78	27	424	70	133	62	92	430	41	39	70	25	66	8
	Female	844	31	68	12	24	10	236	37	69	19	43	193	13	19	33	8	24	5
A 79 Rheumatic fever	Male	5				1		1					1	1					
	Female	4			1					2			1						

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A 80 Chronic rheumatic heart disease	Male	59	1	8			2	9	3	6	1	4	15	3	1			4	1
	Female	42	1	1	1	1		15	1	6	3	1	10						
A 81 Arteriosclerotic and degenerative heart disease	Male	1365	64	74	10	63	19	343	54	105	54	68	324	31	27	58	15	53	3
	Female	559	19	47	6	20	8	157	25	42	10	30	131	8	12	21	7	14	2
A 82 Other diseases of heart	Male	81	1	9		3	1	14	4	7	1	2	13	2	3	8	5	5	3
	Female	56	3	1				16	3	5		5	5			6	1	2	1
A 83 Hypertension with heart disease	Male	95	6	2	1	3	3	20	6	5	2	8	29	1	1	5	1	2	
	Female	88	2	10	1	1		22	4	7	1	4	30	2	1	1		2	
A 84 Hypertension without mention of heart	Male	36	3	1		2	1	7		4		1	14	1					
	Female	30	1	2	1	1		4	1	2	1	2	10	2		3			
A 85 Diseases of arteries	Male	100	4	7	2	4	1	28	3	2	2	7	28	2	2	3	3	2	
	Female	55	5	5	2	1	1	20	2	4	3	1	4		3	2		2	
A 86 Other diseases of circulatory system	Male	19	1	1		2		2		3	2	2	6						
	Female	10		2				2	1	1		2	2						
<b>VIII. DISEASES OF THE RESPIRATORY SYSTEM.</b>	Total	384	9	28	4	8	5	91	17	25	9	12	97	7	20	21	10	10	11
	Male	229	6	15	3	5	4	57	5	13	6	7	66	3	11	13	5	6	4
	Female	155	3	13	1	3	1	34	12	12	3	5	31	4	9	8	5	4	7
A 87 Acute upper respiratory infections	Male	4						2					2		1	1			
	Female	6						2		1			1						
A 89 Lobar pneumonia	Male	7		1		1		2		1							3		
	Female	7											3						
A 88 Influenza	Male	27		2	1		1	8	1			1	9	1	2	1		1	
	Female	14		1				3	4	2		1	1		3				
A 90 Bronchopneumonia	Male	84	1	4		2	2	16	2	7	5	5	26	1	5	4	2	1	1
	Female	55	1	6	1	1	1	7	3	4	2	3	11	2	5	2	1	3	2
A 91 Primary atypical, other and unspecified pneumonia	Male	33	1	4	1	2	1	7	3	3	1	1	5	1	2	1	2	3	2
	Female	40	2	3		2		6	2	4	1	1	5	1	3	3	2	1	4
A 92 Acute bronchitis	Male	15	1	1				8	1				4						
	Female	6						4	1										
A 93 Bronchitis, chronic and unqualified	Male	11	1	3				3	1				1		1	1			
	Female	6						2	1				1						
A 94 Hypertrophy of tonsils and adenoids	Male	1		1						1									
	Female	1																	
A 95 Empyema and abscess of lung	Male	2											2						
	Female	2						1					1						
A 96 Pleurisy	Male	1																1	
	Female	1																	
A 97 All other respiratory diseases	Male	42	2		1			11	2	1		1	17	1	1	4		1	
	Female	19		1				8	1			1	7	1					
<b>IX. DISEASES OF THE DIGESTIVE SYSTEM.</b>	Total	298	8	22	4	13	2	82	7	15	8	10	72	3	15	14	12	5	6
	Male	180	3	13	3	8	2	43	3	10	5	8	48	3	9	7	7	4	4
	Female	118	5	9	1	5		39	4	5	3	2	24		6	7	5	1	2
A 98 Diseases of teeth and supporting structures	Male	1		1															
	Female	1																	
A99 Ulcer of stomach	Male	13						3					6		3				1
	Female	8						4	1				1						
A100 Ulcer of duodenum	Male	22		2	1	3		6		2	1	1	4	1		3			
	Female	5						3					2						
A101 Gastritis and duodenitis	Male	1		1															
	Female	1																	
A102 Appendicitis	Male	6	1	1		1	1	1					2						
	Female	6	1			1		2								2			
A103 Intestinal obstruction and hernia	Male	28			1	1		5		4	3	2	8		1	1	1	1	
	Female	16	1	3	1			4		1			3		2	1			
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn	Male	39		3	1			11	1	1		1	6	2	3	2	3	2	3
	Female	30	1	4		1		7		1	2		2		5	1	4		2
A105 Cirrhosis of liver	Male	31	2	2			1	7	2		1	1	12				2	1	
	Female	10		1				5					4						
A106 Cholelithiasis and cholecystitis	Male	18				3		5		2		2	5		1				
	Female	22				1		7	2	3			7		1	1			
A107 Other diseases of digestive system	Male	22		3	1	1		7		1		1	5		2		1		
	Female	19	2			2		5	1		1	1	5						
<b>X. DISEASES OF THE GENITO-URINARY SYSTEM.</b>	Total	166	4	16	5	8	2	42	4	18	6	3	39	3	2	5	7	2	
	Male	110	4	9	2	4	1	30	3	14	5	2	27	1	2	2	3	1	
	Female	56		7	3	4	1	12	1	4	1	1	12	2		3	4	1	
A108 Acute nephritis	Male	1								1									
	Female	1						1											
A109 Chronic, other and unspecified nephritis	Male	40	2	1	1	4		8	1	6	4	1	7			2	2	1	
	Female	37		6	2	3	1	8		2		1	7			3	3	1	

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A110 Infections of kidney .....	Male.....	16	2	1	1	6	1	1	1	1	1	6	2	1	1	1	1	1	1
	Female.....	7	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1
A111 Calculi of urinary system .....	Male.....	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A112 Hyperplasia of prostate .....	Male.....	37	2	5	1	1	11	4	2	6	1	1	7	1	2	1	1	1	1
A114 Other diseases of genito- urinary system .....	Male.....	10	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1
	Female.....	9	1	1	1	1	1	3	1	1	1	1	3	1	1	1	1	1	1
<b>XI. DELIVERIES AND COMPLICA- TIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM.</b>	Total.....	11	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	1	1
A115 Sepsis of pregnancy, childbirth and the puerperium .....	Female.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A116 Toxaemias of pregnancy and the puerperium .....	Female.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A117 Haemorrhage of pregnancy and childbirth .....	Female.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A119 Abortion with sepsis .....	Female.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A120 Other complications of pregnancy, childbirth and the puerperium .....	Female.....	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>XII, XIII. DISEASES OF THE SKIN AND MUSCULO-SKELETAL SYSTEM.</b>	Total.....	42	2	8	1	1	1	3	1	2	1	1	1	1	1	4	1	3	1
	Male.....	17	1	1	1	1	1	3	1	2	1	1	1	1	1	3	1	1	1
	Female.....	25	1	7	1	1	1	3	1	1	1	1	1	1	1	1	1	2	1
A121 Infections of skin and subcutaneous tissue .....	Male.....	3	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
	Female.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A122 Arthritis and spondylitis .....	Male.....	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female.....	19	1	5	1	1	1	3	1	2	1	1	7	1	1	1	1	2	1
A124 Osteomyelitis and periostitis .....	Male.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A126 All other diseases of skin and musculoskeletal system .....	Male.....	7	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1
	Female.....	5	1	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1
<b>XIV. CONGENITAL MALFORMATIONS.</b>	Total.....	158	6	16	2	4	1	37	7	6	4	5	48	3	5	5	5	4	1
	Male.....	84	5	8	1	3	1	19	4	4	3	2	25	3	3	1	1	2	1
	Female.....	74	1	8	1	1	1	18	3	2	1	3	23	1	2	4	4	2	1
A127 Spina bifida and meningocele .....	Male.....	7	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1
	Female.....	13	1	1	1	1	1	4	1	1	1	1	4	1	1	1	1	1	1
A128 Congenital malformations of circulatory system .....	Male.....	35	3	2	2	1	1	9	1	1	2	1	14	2	1	1	1	1	1
	Female.....	23	1	6	1	1	1	2	1	1	1	1	9	1	1	2	1	1	1
A129 All other congenital malformations .....	Male.....	42	2	5	1	1	1	9	2	3	1	1	10	1	3	1	1	2	1
	Female.....	38	1	2	1	1	1	12	2	1	1	2	10	1	1	2	3	1	1
<b>XV. CERTAIN DISEASES OF EARLY INFANCY.</b>	Total.....	471	16	37	9	12	4	115	17	40	9	13	112	11	20	20	15	15	6
	Male.....	283	10	23	4	8	3	70	11	22	5	6	69	8	11	12	9	8	4
	Female.....	188	6	14	5	4	1	45	6	18	4	7	43	3	9	8	6	7	2
A130 Birth injuries .....	Male.....	49	1	3	1	1	1	15	1	3	2	17	5	2	1	1	1	1	1
	Female.....	35	2	3	1	1	1	11	1	3	4	1	5	2	1	1	1	1	1
A131 Postnatal asphyxia and atelectasis .....	Male.....	80	4	9	1	1	2	22	1	8	2	2	14	1	3	5	1	4	1
	Female.....	50	2	3	1	1	1	6	2	5	4	18	7	1	1	1	1	2	1
A132 Infections of the newborn .....	Male.....	15	1	1	1	1	1	3	1	1	1	1	3	1	1	1	1	1	1
	Female.....	13	1	1	1	1	1	5	1	1	1	1	2	1	1	1	1	1	1
A133 Haemolytic disease of newborn .....	Male.....	10	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female.....	9	1	3	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
A134 All other defined diseases of early infancy .....	Male.....	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Female.....	9	1	2	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1
A135 Ill-defined diseases peculiar to early infancy, and immaturity unqualified .....	Male.....	120	2	8	3	6	1	28	8	10	2	2	26	5	2	6	5	3	3
	Female.....	72	2	6	1	3	1	18	1	9	2	2	15	1	2	4	3	4	1
<b>XVI. SYMPTOMS, SENILITY, AND ILL-DEFINED CONDITIONS.</b>	Total.....	144	5	12	9	1	1	29	5	6	4	7	39	1	5	2	8	3	9
	Male.....	104	2	10	6	1	1	15	4	5	4	5	33	1	3	2	5	2	7
	Female.....	40	3	2	3	1	1	14	1	1	1	2	6	1	2	1	3	1	2
A136 Senility without mention of psychosis .....	Male.....	28	1	2	2	1	1	4	1	1	2	1	10	1	1	1	3	2	1
	Female.....	16	1	1	1	1	1	7	1	1	1	1	3	1	1	1	1	1	1



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AI37 Ill-defined and unknown causes	Male	76	2	8		4		11	4	5		5	23		2		2		6
	Female	24	2	1		3		7	1	1	2	1	3		1		2		1
EXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFI- CATION ACCORDING TO EXTERNAL CAUSE).	Total	746	23	56	14	31	13	140	27	68	24	33	177	24	26	33	18	29	10
	Male	570	13	40	11	24	10	104	18	52	22	28	136	20	18	25	16	23	10
	Female	176	10	16	3	7	3	36	9	16	2	5	41	4	8	8	2	6	
AEI38 Motor vehicle accidents	Male	161	2	12	6	7	3	26	5	17	13	6	39	7	4	4	4	6	
Traffic accidents	Female	49	3	5		3	3	11	4	3			17					2	
	Male	157	2	11	6	7	3	26	5	16	13	5	39	7	4	4	4	5	
AEI39 Other transport accidents	Female	47	3	5		3		11	4	2			17					1	
	Male	64	2	4	2	2		11	1	5	3		21	3	1	2	3	2	2
AEI40 Accidental poisoning	Female	2																	
	Male	21		3	1			7				1	6		1	1			
AEI41 Accidental falls	Female	3											2						
	Male	52		4		3		8	3	8		3	17	1	2	2		1	
AEI42 Accidents caused by machinery	Female	50	2	7	1	4	2	10	3	6	1	2	8		1	2		1	
	Male	33		3			2	5	2	4	2	3	4			2	2	2	2
AEI43 Accident caused by fire and explosion of combustible material	Female																		
	Male	26	1			1		1		4		2	5	3	3	4	1	1	
AEI44 Accident caused by hot sub- stance, corrosive liquid, steam, and radiation	Female	11		1			1		1				2	2	1	1		2	
	Male	3													1	1	1		
AEI45 Accident caused by firearm	Female	3	1																
	Male	12			1	1		1		1		1	3	1	1	1		1	1
AEI46 Accidental drowning and submersion	Female	3																	
	Male	30	2	2		1		6		2	1	4	3	1		4		1	3
AEI47 All other accidental causes	Female	7	1	1				2		2					1	1			
	Male	75	4	8	1	1	3	15	2	5	2	3	15	4	1	3	4	3	1
AEI48 Suicide and self-inflicted injury	Female	18	2	1	1			3		1	1	1	3		4		2		
	Male	83	2	4		8	2	21	5	5	1	3	21	1	3		1	6	
AEI49 Homicide and injury purposely inflicted by other persons (not in war)	Female	24	1		1			7	1	2			7	1	1	3			
	Male	9						2				2	2		1	1			1
AEI50 Injury resulting from operations of war	Female	6		1								2	2					1	
	Male	1						1											
	Female																		
NXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFI- CATION ACCORDING TO NATURE OF INJURY).	Total	746	23	56	14	31	13	140	27	68	24	33	177	24	26	33	18	29	10
	Male	570	13	40	11	24	10	104	18	52	22	28	136	20	18	25	16	23	10
	Female	176	10	16	3	7	3	36	9	16	2	5	41	4	8	8	2	6	
ANI38 Fracture of skull	Male	134	1	9	4	4	1	26	8	13	7	5	33	3	2	2	5	9	2
	Female	33	3	5		1		9	2	1		1	10					1	
ANI39 Fracture of spine and trunk	Male	24		3		1	1	5	1	2	3	1	4	1		1		1	
	Female	7											4						
ANI40 Fracture of limbs	Male	24		2				3	1	7		1	8	2				2	
	Female	40	2	5	1	3	2	6	4	5	1	2	6		1	2			
ANI43 Head injury (excluding fracture)	Male	57		3	1	7	4	7	3	2	2	3	13		4	3	1	3	1
	Female	14		1	1	1		6		2			1		1				
ANI44 Internal injury of chest, abdomen, and pelvis	Male	111	1	8	1	4	2	24	3	9	5	5	29	7	3	4	4	2	
	Female	21		1		1		5	1	2		2	6			3			
ANI45 Laceration and open wounds	Male	11		2				4					1		1				1
	Female	4		1		1		1					1						
ANI46 Superficial injury, contusion and crushing with intact skin surface	Male	3		1				2											
	Female																		
ANI47 Effects of foreign body entering through orifice	Male	20	2	2	1		1	3				1	2	1	1	4	1		1
	Female	11	2	1	1								2	2	3		2		
ANI48 Burns	Male	18	1					1		3		2	2	2	3	3	1		
	Female	11	1	1			1						1	3	1			2	
ANI49 Effects of poisons	Male	49	1	4	2	4		12	1	3		1	13	1	2	3	1	1	
	Female	12	1					1	1	2			5			2			
ANI50 All other and unspecified effects of external causes	Male	119	7	6	2	4	1	17	1	13	5	8	30	3	2	5	3	7	5
	Female	23	1	1				8	1	2	1		5		2	1		1	

TABLE 7: CAUSES OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION  
AND OVER IN ALBERTA, 1954

CAUSES OF DEATH (Intermediate List)	SEX	Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
ALL CAUSES.....	Male.....	1999	816	900	35	101	111	36
	Female.....	1232	526	516	15	89	63	23
	Total.....	3231	1342	1416	50	190	174	59
I. INFECTIVE AND PARASITIC DISEASES.....	Total.....	56	19	28	2	4	3	...
	Male.....	35	10	20	1	3	1	...
	Female.....	21	9	8	1	1	2	...
A 1 Tuberculosis of respiratory system.....	Male.....	15	5	6	1	2	1	...
	Female.....	8	5	1	...	...	2	...
A 2 Tuberculosis of meninges and central nervous system.....	Male.....	1	...	1	...	...	...	...
	Female.....	1	...	1	...	...	...	...
A 5 Tuberculosis, all other forms.....	Male.....	1	...	1	...	...	...	...
	Female.....	3	2	1	...	...	...	...
A 9 General paralysis of insane.....	Male.....	1	...	1	...	...	...	...
	Female.....	5	2	2	...	1	...	...
A 10 All other syphilis.....	Male.....	...	...	...	...	...	...	...
	Female.....	...	...	...	...	...	...	...
A 12 Typhoid fever.....	Male.....	1	...	1	...	...	...	...
	Female.....	1	...	1	...	...	...	...
A 18 Streptococcal sore throat.....	Male.....	1	...	1	...	...	...	...
	Female.....	2	...	2	...	...	...	...
A 20 Septicaemia and pyaemia.....	Male.....	2	...	2	...	...	...	...
	Female.....	4	2	2	...	...	...	...
A 23 Meningococcal infections.....	Male.....	4	2	2	...	...	...	...
	Female.....	3	...	3	...	...	...	...
A 28 Acute poliomyelitis.....	Male.....	4	...	2	1	1	...	...
	Female.....	1	...	1	...	...	...	...
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis.....	Male.....	1	...	1	...	...	...	...
	Female.....	1	...	1	...	...	...	...
A 34 Infectious hepatitis.....	Male.....	1	1	...	...	...	...	...
	Female.....	2	1	1	...	...	...	...
A 43 All other diseases classified as infective and parasitic.....	Male.....	2	1	1	...	...	...	...
	Female.....	2	1	1	...	...	...	...
II. NEOPLASMS.....	Total.....	556	235	238	7	40	26	10
	Male.....	323	140	129	2	29	15	8
	Female.....	233	95	109	5	11	11	2
A 44 Malignant neoplasm of buccal cavity and pharynx.....	Male.....	3	3	...	...	...	...	...
	Female.....	5	2	1	...	1	1	...
A 45 Malignant neoplasm of oesophagus.....	Male.....	5	2	2	...	1	...	...
	Female.....	45	20	16	1	6	2	...
A 46 Malignant neoplasm of stomach.....	Male.....	27	10	14	1	1	1	...
	Female.....	32	12	14	...	2	2	2
A 47 Malignant neoplasm of intestine, except rectum.....	Male.....	28	13	14	...	1	...	...
	Female.....	20	8	8	...	3	1	...
A 48 Malignant neoplasm of rectum.....	Male.....	6	2	4	...	...	...	...
	Female.....	1	1	...	...	...	...	...
A 49 Malignant neoplasm of larynx.....	Male.....	1	1	...	...	...	...	...
	Female.....	40	17	16	...	5	1	1
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary.....	Male.....	5	1	4	...	...	...	...
	Female.....	1	1	...	...	...	...	...
A 51 Malignant neoplasm of breast.....	Male.....	43	19	17	2	2	3	...
	Female.....	20	9	7	1	3	...	...
A 52 Malignant neoplasm of cervix uteri.....	Female.....	9	6	2	...	...	1	...
A 53 Malignant neoplasm of other and unspecified parts of uterus.....	Male.....	44	20	17	...	4	2	1
A 54 Malignant neoplasm of prostate.....	Male.....	4	1	3	...	...	...	...
A 55 Malignant neoplasm of skin.....	Male.....	4	1	3	...	...	...	...
	Female.....	2	1	3	...	...	...	...
A 56 Malignant neoplasm of bone and connective tissue.....	Male.....	4	1	3	...	...	...	...
	Female.....	2	1	...	...	1	...	...
A 57 Malignant neoplasm of all other and unspecified sites.....	Male.....	85	37	36	...	7	4	1
	Female.....	68	25	35	...	2	4	2
A 58 Leukaemia and aleukaemia.....	Male.....	19	9	7	...	...	2	1
	Female.....	10	4	4	1	1	1	2
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system.....	Male.....	17	6	6	1	1	1	2
	Female.....	7	2	5	...	...	...	...
Hodgkin's disease.....	Male.....	3	1	1	1	...	...	...
	Female.....	2	1	1	...	...	...	...
A 60 Benign neoplasms and neoplasms of unspecified nature.....	Male.....	4	3	1	...	...	...	...
	Female.....	2	...	2	...	...	...	...
III, IV. ALLERGIC DISORDERS AND ENDOCRINE METABOLIC AND BLOOD DISEASES.....	Total.....	80	27	39	...	4	8	2
	Male.....	39	14	19	...	1	5	...
	Female.....	41	13	20	...	3	3	2
A 62 Thyrotoxicosis with or without goitre.....	Male.....	...	...	...	...	...	...	...
	Female.....	3	1	1	...	1	...	...

TABLE 7: CAUSES OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION  
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CAUSES OF DEATH (Intermediate List)	SEX	Male	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
A 63 Diabetes mellitus.....	Male.....	22	6	10	1	5		
	Female.....	23	7	10	2	3	1	
A 64 Avitaminosis and other deficiency states.....	Male.....							
	Female.....	2		2				
A 65 Anaemias.....	Male.....	1		1				
	Female.....	2		2				
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases.....	Male.....	16	8	8				
	Female.....	11	5	5			1	
<b>V. MENTAL, PSYCHONEUROTIC, AND PERSONALITY DISORDERS.....</b>	Total.....	14	4	9	1			
	Male.....	10	3	6	1			
	Female.....	4	1	3				
A 67 Psychoses.....	Male.....	2	1	1				
	Female.....	2	1	1				
A 68 Psychoneuroses and disorders of personality.....	Male.....	4	1	3				
	Female.....	1		1				
A 69 Mental deficiency.....	Male.....	4	1	3				
	Female.....	1		1				
<b>VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS.....</b>	Total.....	420	163	195	6	23	26	7
	Male.....	222	85	110	5	6	13	3
	Female.....	198	78	85	1	17	13	4
A 70 Vascular lesions affecting central nervous system.....	Male.....	201	79	97	4	5	13	3
	Female.....	183	74	78	1	15	12	3
A 71 Nonmeningococcal meningitis.....	Male.....	2		1	1			
	Female.....	2	1	1				
A 72 Multiple sclerosis.....	Male.....	1	1					
	Female.....	5	2	2		1		
A 73 Epilepsy.....	Male.....	1		1				
	Female.....							
A 77 Otitis media and mastoiditis.....	Male.....	2		2				
	Female.....							
A 78 All other diseases of the nervous system and sense organs.....	Male.....	15	5	9		1		
	Female.....	8	1	4		1	1	1
<b>VII. DISEASES OF THE CIRCULATORY SYSTEM.....</b>	Total.....	1145	511	470	18	61	71	14
	Male.....	754	324	325	13	29	53	10
	Female.....	391	187	145	5	32	18	4
A 79 Rheumatic fever.....	Male.....	2	1					1
	Female.....	1						
A 80 Chronic rheumatic heart disease.....	Male.....	20	5	10	1	3	1	
	Female.....	20	9	10		1		
A 81 Arteriosclerotic and degenerative heart disease.....	Male.....	584	261	246	9	21	41	6
	Female.....	266	127	97	3	22	13	4
A 82 Other diseases of heart.....	Male.....	25	10	10	2	1	2	
	Female.....	20	12	5	1	2		
A 83 Hypertension with heart disease.....	Male.....	41	15	22		1	3	
	Female.....	47	18	23	1	5		
A 84 Hypertension without mention of heart.....	Male.....	19	5	11		1	2	
	Female.....	9	3	4		1		
A 85 Disease of arteries.....	Male.....	54	25	21	3	1	4	
	Female.....	24	16	4		2	2	
A 86 Other diseases of circulatory system.....	Male.....	9	2	5			1	1
	Female.....	4	2	1		1		
<b>VIII. DISEASES OF THE RESPIRATORY SYSTEM.....</b>	Total.....	146	54	70	4	8	5	5
	Male.....	98	34	47	4	6	4	3
	Female.....	48	20	23		2	1	2
A 87 Acute upper respiratory infections.....	Male.....	3	1					
	Female.....	3	2	1				
A88 Influenza.....	Male.....	1				1		
	Female.....	3		2				
A 89 Lobar pneumonia.....	Male.....	13	6	7				
	Female.....	4	2	1				1
A 90 Bronchopneumonia.....	Male.....	34	11	17	2	2	1	1
	Female.....	14	5	8		1		
A 91 Primary atypical, other and unspecified pneumonia.....	Male.....	10	3	4		2		1
	Female.....	6		4			1	1
A 92 Acute bronchitis.....	Male.....	9	3	3	1	1		
	Female.....	3	3					
	Male.....	5	2	1			1	1
	Female.....	2	1	1				
A 93 Bronchitis, chronic and unqualified..	Male.....	1		1				
	Female.....	1		1				
A 95 Empyema and abscess of lung.....	Male.....	2	1	1				
	Female.....							
A 96 Pleurisy.....	Male.....	1		1				
	Female.....							
A 97 All other respiratory diseases.....	Male.....	22	8	12	1		1	
	Female.....	10	6	4				



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CAUSES OF DEATH (Intermediate List)	SEX	Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
<b>IX. DISEASES OF THE DIGESTIVE SYSTEM</b>	Total	128	52	58		8	7	3
	Male	74	25	39		6	2	2
	Female	54	27	19		2	5	1
A 99 Ulcer of stomach	Male	6	2	4				
	Female	6	5	1				
A100 Ulcer of duodenum	Male	6	1	4				1
	Female	4	2	2				
A102 Appendicitis	Male	2		1		1		
	Female	2	1				1	
A103 Intestinal obstruction and hernia	Male	12	3	8				1
	Female	9	4	2		2	1	
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn	Male	13	7	5		1		
	Female	6	3	2			1	
A105 Cirrhosis of liver	Male	19	5	10		2	2	
	Female	7	4	3				
A106 Cholelithiasis and cholecystitis	Male	6	3	3				
	Female	9	3	5				1
A107 Other diseases of digestive system	Male	10	4	4		2		
	Female	11	5	4			2	
<b>X. DISEASES OF THE GENITO-URINARY SYSTEM</b>	Total	74	32	32	1	5	3	1
	Male	50	22	22	1	2	3	
	Female	24	10	10		3		1
A109 Chronic, other and unspecified nephritis	Male	11	4	5	1		1	
	Female	15	7	6		2		
A110 Infections of kidney	Male	11	4	5		2		
	Female	4		2		1		1
A111 Calculi of urinary system	Male	5	1	4				
	Female							
A112 Hyperplasia of prostate	Male	18	10	6			2	
A114 Other diseases of genito-urinary system	Male	5	3	2				
	Female	5	3	2				
<b>XI. DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM</b>	Total	1						1
A119 Abortion with sepsis	Female	1						1
<b>XII, XIII, DISEASES OF THE SKIN AND MUSCULOSKELETAL SYSTEM</b>	Total	16	3	10		2	1	
	Male	4		3		1		
	Female	12	3	7		1	1	
A121 Infections of skin and subcutaneous tissue	Male	1				1		
	Female							
A122 Arthritis and spondylitis	Male	2		2				
	Female	11	3	6		1	1	
A126 All other diseases of skin and musculoskeletal system	Male	1		1				
	Female	1		1				
<b>XIV. CONGENITAL MALFORMATIONS</b>	Total	80	30	40	3	5	2	
	Male	40	17	20	1	1	1	
	Female	40	13	20	2	4	1	
A127 Spina bifida and meningocele	Male	3	1	1		1		
	Female	6	3	2	1			
A128 Congenital malformations of circulatory system	Male	22	9	12			1	
	Female	13	1	8	1	3		
A129 All other congenital malformations	Male	15	7	7	1			
	Female	21	9	10		1	1	
<b>XV. CERTAIN DISEASES OF EARLY INFANCY</b>	Total	203	88	84	5	13	7	6
	Male	122	53	49	4	6	6	4
	Female	81	35	35	1	7	1	2
A130 Birth injuries	Male	29	13	12	3	1		
	Female	14	9	5				
A131 Postnatal asphyxia and atelectasis	Male	32	14	11		2	2	3
	Female	19	4	12		1	1	1
A132 Infections of the newborn	Male	6	1	3	1		1	
	Female	7	4	3				
A133 Haemolytic disease of newborn	Male	4	1	2			1	
	Female	4	1	1		2		
A134 All other defined diseases of early infancy	Male	3		3				
	Female	3	1	1		1		
A135 Ill-defined disease peculiar to early infancy and immaturity unqualified	Male	48	24	18		3	2	1
	Female	34	16	13	1	3		1

TABLE 7: CAUSES OF DEATH BY SEX FOR URBAN PLACES OF 5,000 POPULATION  
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CAUSES OF DEATH (Intermediate List)	SEX	Total	Calgary	Edmonton	Jasper Place	Lethbridge	Medicine Hat	Red Deer
<b>XVI. SYMPTOMS, SENILITY, AND ILL-DEFINED CONDITIONS</b>	Total.....	53	19	30	3	1		
	Male.....	39	9	27	3	1		
	Female.....	14	10	3				
AI36 Senility without mention of psychosis.....	Male.....	12	4	8				
	Female.....	8	6	1		1		
AI37 Ill-defined and unknown causes.....	Male.....	27	5	19	3			
	Female.....	6	4	2				
<b>EXVII. ACCIDENT, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO EXTERNAL CAUSE)</b>	Total.....	259	105	113	3	14	14	10
	Male.....	189	80	84	3	8	8	6
	Female.....	70	25	29		6	6	4
AEI38 Motor vehicle accidents.....	Male.....	45	18	23		2		2
	Female.....	28	8	14		2	3	1
Traffic accidents.....	Male.....	45	18	23		2		2
	Female.....	28	8	14		2	3	1
AEI39 Other transport accidents.....	Male.....	29	11	14		1	2	1
	Female.....	2	2					
AEI40 Accidental poisoning.....	Male.....	12	7	4		1		
	Female.....	2	1	1				1
AEI41 Accidental falls.....	Male.....	24	7	15		1		1
	Female.....	15	6	4		2	2	1
AEI42 Accidents caused by machinery.....	Male.....	3	2			1		
	Female.....							
AEI43 Accidents caused by fire and explosion of combustible material.....	Male.....	5		3	1		1	
	Female.....	2		1		1		
AEI45 Accidents caused by firearm.....	Male.....	2	1	1				
	Female.....							
AEI46 Accidental drowning and submersion.....	Male.....	8	3	2			1	2
	Female.....	2	1					1
AEI47 All other accidental causes.....	Male.....	23	10	9	2		2	
	Female.....	6	2	3		1		
AEI48 Suicide and self-inflicted injury.....	Male.....	35	18	13		2	2	
	Female.....	12	6	6				
AEI49 Homicide and injury purposely inflicted by other persons (not in war).....	Male.....	2	2					
	Female.....	1				1		
AEI50 Injury resulting from operations of war.....	Male.....	1	1					
	Female.....							
<b>NXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO NATURE OF INJURY)</b>	Total.....	259	105	113	3	14	14	10
	Male.....	189	80	84	3	8	8	6
	Female.....	70	25	29		6	6	4
ANI38 Fracture of skull.....	Male.....	50	25	20	1	1		3
	Female.....	18	7	6		2	3	
ANI39 Fracture of spine and trunk.....	Male.....	5	3	2				
	Female.....	3		3				
ANI40 Fracture of limbs.....	Male.....	11	3	7		1		
	Female.....	11	2	3		2	2	2
ANI43 Head injury (excluding fracture).....	Male.....	13	6	6		1		
	Female.....	6	5	1				
ANI44 Internal injury of chest, abdomen, and pelvis.....	Male.....	38	14	20		3		1
	Female.....	9	4	5				
ANI45 Laceration and open wounds.....	Male.....	5	3	1		1		
	Female.....	1				1		
ANI46 Superficial injury, contusion and crushing with intact skin surface.....	Male.....	1	1					
	Female.....							
ANI47 Effects of foreign body entering through orifice.....	Male.....	5	2	2			1	
	Female.....	3		2			1	
ANI48 Burns.....	Male.....	2		1			1	
	Female.....	1				1		
ANI49 Effects of poisons.....	Male.....	24	12	10			1	
	Female.....	6	1	4				1
ANI50 All other and unspecified effects of external causes.....	Male.....	35	11	15	2		5	2
	Female.....	12	6	5				1





[illegible]



VI. DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS	Total	926	151	3	1	1	1	4	1	3	3	7	6	7	14	17	40	45	77	119	162	191	118	92
	Male	538	12	2	1	1	1	3	1	3	2	6	4	3	5	8	23	20	49	84	93	108	64	49
	Female	388	3	1	1	1	1	1	1	1	1	1	2	4	9	9	17	25	28	35	69	83	54	43
	A 70 Vascular lesions affecting central nervous system	Male	481									3	4	2	5	7	16	18	41	79	86	105	63	49
		Female	361									1	2	3	7	9	16	24	25	34	66	80	51	43
	A 71 Nonmeningococcal meningitis	Male	7	6																				
		Female	3	2																				
	A 72 Multiple Sclerosis	Male	3																					
		Female	6																					
	A 73 Epilepsy	Male	9																					
VII. DISEASE OF THE CIRCULATORY SYSTEM	Male	4																						
	Female	34	1	1																				
	Male	18	1	1																				
	Total	2604																						
	Male	1760																						
	Female	844																						
	A 79 Rheumatic fever	Male	5																					
		Female	4																					
	A 80 Chronic rheumatic heart disease	Male	59																					
		Female	42																					
VIII. DISEASES OF THE RESPIRATORY SYSTEM	Male	1355																						
	Female	559																						
	Male	81																						
		Female	56																					
	A 83 Hypertension with heart disease	Male	95																					
		Female	88																					
	A 84 Hypertension without mention of heart	Male	36																					
		Female	30																					
	A 85 Diseases of arteries	Male	100																					
		Female	55																					
IX. DISEASES OF THE RESPIRATORY SYSTEM	Male	19																						
	Female	10																						
	Total	384	104	17	13	3	3	1	2	6	1	3	5	7	4	7	12	11	20	18	32	37	34	44
	Male	229	55	12	6	1	2	2	3	1	2	3	4	3	6	10	6	15	10	22	27	16	23	43
	Female	155	49	5	7	2	1	1	3	1	1	2	3	1	1	2	5	5	8	10	10	18	21	21
	A 87 Acute upper respiratory infections	Male	6	4	1																			
		Female	4	2	1																			
	A 88 Influenza	Male	7	2	1																			
		Female	7	2	1																			
	X. DISEASES OF THE RESPIRATORY SYSTEM	Male	27	5	1																			
Female		14	2	1																				
Male		84	22	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female		18	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
A 89 Lobar pneumonia		Male	55	18	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		Female	55	18	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
A 90 Bronchopneumonia		Male	55	18	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		Female	55	18	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2





[illegible]





[illegible]



	Male	Female	Total	% Male	% Female
A 44 Malignant neoplasm of buccal cavity and pharynx .....	1	2	3	33	67
A 45 Malignant neoplasm of oesophagus .....	16	14	30	53	47
A 46 Malignant neoplasm of stomach .....	14	8	22	64	36
A 47 Malignant neoplasm of intestine, except rectum .....	14	4	18	78	22
A 48 Malignant neoplasm of rectum .....	16	4	20	80	20
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary .....	16	4	20	80	20
A 51 Malignant neoplasm of breast .....	17	7	24	71	29
A 52 Malignant neoplasm of cervix uteri .....	7	2	9	78	22
A 53 Malignant neoplasm of other and unspecified parts of uterus .....	2	2	4	50	50
A 54 Malignant neoplasm of prostate .....	17	3	20	85	15
A 55 Malignant neoplasm of skin .....	3	3	6	50	50
A 56 Malignant neoplasm of bone and connective tissue .....	3	3	6	50	50
A 57 Malignant neoplasm of all other and unspecified sites .....	36	35	71	51	49
A 58 Leukaemia and aleukaemia .....	7	4	11	64	36
A 59 Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system (I) .....	6	5	11	55	45
Hodgkin's disease .....	1	1	2	50	50
A 60 Benign neoplasms and neoplasms of unspecified nature .....	1	2	3	33	67
<b>III, IV, ALLERGIC DISORDERS AND ENDOCRINE METABOLIC AND BLOOD DISEASES</b> .....	39	2	41	95	5
A 62 Thyrotoxicosis with or without goitre .....	19	2	21	90	10
A 63 Diabetes mellitus .....	20	1	21	95	5
A 64 Avitaminosis and other deficiency states .....	1	10	11	9	91
A 65 Anaemias .....	2	1	3	67	33
A 66 Allergic disorders; all other endocrine, metabolic and blood diseases .....	2	2	4	50	50





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[illegible]



	Male	Female	Total
ANI48 Burns	11	10	21
ANI49 Effects of poisons	4	15	19
ANI50 All other and unspecified effects of external causes	5	1	6

1. Includes Hodgkins disease.
2. Comprises traffic and non-traffic.











	Male	Female	Total	%	Ratio	Rate per 100,000	Age-standardized rate	Crude rate	Standardized rate	Rate ratio	95% CI	P-value	Significance
A 93 Bronchitis, chronic and unqualified .....	2	1	3	1	1	7	6	7	5	1	1	1	1
A 95 Empyema and abscess of lung .....	1	1	2	1	1	2	2	2	2	1	1	1	1
A 97 All other respiratory diseases .....	8	1	9	2	1	2	2	2	2	1	1	1	1
	6	1	7	1	1	1	1	1	1	1	1	1	1
<b>IX. DISEASES OF THE DIGESTIVE SYSTEM</b>													
A 99 Ulcer of stomach .....	52	3	55	1	1	12	11	12	10	1	1	1	1
A100 Ulcer of duodenum .....	25	2	27	1	1	6	5	6	5	1	1	1	1
A102 Appendicitis .....	2	1	3	1	1	1	1	1	1	1	1	1	1
A103 Intestinal obstruction and hernia .....	1	1	2	1	1	1	1	1	1	1	1	1	1
A104 Gastro-enteritis and colitis, except diarrhoea of the newborn .....	3	1	4	1	1	2	2	2	2	1	1	1	1
A105 Cirrhosis of liver .....	7	2	9	1	1	2	2	2	2	1	1	1	1
A106 Cholelithiasis and cholecystitis .....	3	1	4	1	1	1	1	1	1	1	1	1	1
A107 Other diseases of digestive system .....	4	1	5	1	1	1	1	1	1	1	1	1	1
	3	1	4	1	1	1	1	1	1	1	1	1	1
<b>X. DISEASES OF THE GENITO-URINARY SYSTEM</b>													
A109 Chronic, other and unspecified nephritis .....	32	1	33	1	1	7	7	7	5	1	1	1	1
A110 Infections of kidney .....	22	1	23	1	1	5	5	5	4	1	1	1	1
A111 Calculi of urinary system .....	10	1	11	1	1	2	2	2	2	1	1	1	1
A112 Hyperplasia of prostate .....	4	1	5	1	1	1	1	1	1	1	1	1	1
A114 Other diseases of genito-urinary system .....	7	1	8	1	1	2	2	2	2	1	1	1	1
	4	1	5	1	1	1	1	1	1	1	1	1	1
<b>XII, XIII.DISEASES OF THE SKIN AND MUSCULOSKELETAL SYSTEM</b>													
A122 Arthritis and spondylitis .....	3	1	4	1	1	1	1	1	1	1	1	1	1
	3	1	4	1	1	1	1	1	1	1	1	1	1
<b>XIV. CONGENITAL MALFORMATIONS</b>													
	30	24	54	3	1	12	11	12	10	1	1	1	1
	17	14	31	2	1	7	6	7	6	1	1	1	1
	13	10	23	1	1	5	4	5	4	1	1	1	1









A 22 Whooping cough	Male	5	2	15	30	71	289	329	3	38	231	15	99	82	94	92	104	103	86	97	116	109	99
A 23 Meningococcal infections	Female	2	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 28 Acute poliomyelitis	Male	15	7	2	1	4	6	1	6	3	1	1	3	1	2	2	2	1	1	2	1	2	1
A 30 Late effects of acute poliomyelitis and acute infectious encephalitis	Female	13	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 32 Measles	Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
A 34 Infectious hepatitis	Female	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 39 Hydatid Disease	Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 43 All other diseases classified as infective and parasitic	Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
II. NEOPLASMS	Total	1164	30	15	30	68	289	329	3	38	231	15	99	82	94	92	104	103	86	97	116	109	99
A 44 Malignant neoplasm of buccal cavity and pharynx	Male	685	19	9	12	43	58	2	24	171	233	8	54	53	59	53	64	60	47	38	67	67	55
A 45 Malignant neoplasm of oesophagus	Female	479	11	6	3	11	10	96	2	28	136	7	45	29	35	39	40	43	39	45	49	42	44
A 46 Malignant neoplasm of stomach	Male	7	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 47 Malignant neoplasm of intestine, except rectum	Female	110	2	1	1	7	7	39	1	1	21	1	7	6	10	8	6	12	7	10	14	12	9
A 48 Malignant neoplasm of rectum	Male	64	1	1	1	4	9	20	1	4	20	1	6	9	2	2	1	4	4	4	8	9	11
A 49 Malignant neoplasm of larynx	Female	52	1	1	1	2	2	10	1	4	12	1	6	2	5	3	7	6	7	8	6	3	8
A 50 Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary	Male	36	1	1	1	4	1	4	1	1	2	1	3	1	1	2	5	2	3	5	1	4	1
A 51 Malignant neoplasm of breast	Female	9	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
A 52 Malignant neoplasm of cervix uteri	Male	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 53 Malignant neoplasm of other and unspecified parts of uterus	Female	19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 54 Malignant neoplasm of prostate	Male	80	1	1	1	5	11	2	1	4	13	1	5	3	9	11	10	5	6	4	5	12	5
A 55 Malignant neoplasm of skin	Female	8	1	1	1	1	1	2	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1
A 56 Malignant neoplasm of bone and connective tissue	Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 57 Malignant neoplasm of all other and unspecified sites	Female	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
A 58 Leukaemia and aleukaemia	Male	175	9	2	4	10	15	42	1	4	25	1	15	16	13	17	18	18	13	5	14	19	9
	Female	136	3	2	2	4	3	29	1	8	36	1	15	8	11	10	10	13	11	13	10	16	12
	Male	37	6	4	1	1	1	11	1	2	4	2	2	2	4	2	2	4	3	1	5	3	4
	Female	26	6	2	1	1	1	4	1	2	4	2	2	2	1	1	2	3	2	3	4	1	3







TABLE 11: DEATHS, BY CAUSE AND SEX, BY MARITAL STATUS AND AGE, AND MONTH OF DEATH, ALBERTA, 1954

CAUSE OF DEATH (INTERMEDIATE LIST)	SEX	Total	Under 15 years	MARITAL STATUS										MONTHS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
				Single					Married					Widowed	Residual	January	February	March	April	May	June	July	August	September	October	November	December																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
				AGE					65+	15-24 years	25-44 years	45-64 years	65+																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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A 91 Primary atypical, other and unspecified pneumonia	Male	33	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1</

X. DISEASES OF THE GENITO- URINARY SYSTEM	Total	166	7	4	7	6	9	11	14	29	42														
	Male	110	5	3	5	6	8	1	6	15	34														
	Female	56	2	1	2				8	14	8														
	A108 Acute nephritis	Male		1																					
	A109 Chronic, other and unspecified nephritis	Female	40	3	2	5	4	1	3	8	10														
	A110 Infections of kidney	Female	37		1	2		3	5	8	7														
	A111 Calculi of urinary system	Male	16	1					1	2	4														
	A112 Hyperplasia of prostate	Female	6	1						2	2														
	A114 Other diseases of genito-urinary system	Male	37	2				4		1	2	17													
	Female	10	1							2	6	3													
XI. DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILD BIRTH, AND THE PUERPERIUM	Male	11			1	1		2	7																
	A115 Sepsis of pregnancy, childbirth and the puerperium	Female							1																
	A116 Toxaemias of pregnancy and the puerperium	Female	2						2																
	A117 Haemorrhage of pregnancy and childbirth	Female	2						1	1															
	A119 Abortion with sepsis	Female	1		1																				
XII, XIII. DISEASES OF THE SKIN AND MUSCULOSKELETAL SYSTEM	A120 Other complications of pregnancy, childbirth and the puerperium	Female	5			1	1	1	3																
	Total	42	5	1	1	3	2		4	4	13														
	Male	17	4	1		2			3	4															
	Female	25	1		1	1			4	1	9														
	A121 Infections of skin and subcutaneous tissue	Male	3	3																					
XIV. CONGENITAL MALFORMATIONS	A122 Arthritis and spondylitis	Female																							
	A124 Osteomyelitis and periostitis	Male	5																						
	A126 All other diseases of skin and musculoskeletal system	Female	19	2	1				2	1	8														
	A128 Congenital malformations of circulatory system	Male	7	1						2															
	Female	5	1																						
XIV. CONGENITAL MALFORMATIONS	Total	158	149	1	3	2		1																	
	Male	84	80			2																			
	Female	74	69	1	3			1																	
	A127 Spina bifida and meningocele	Male	7	7																					
	A128 Congenital malformations of circulatory system	Female	13	13																					
XIV. CONGENITAL MALFORMATIONS	Male	35	34																						
	Female	23	21	1																					
	A127 Spina bifida and meningocele	Male	7	7																					
	A128 Congenital malformations of circulatory system	Female	13	13																					
	Male	35	34																						
XIV. CONGENITAL MALFORMATIONS	Female	23	21	1																					
	A127 Spina bifida and meningocele	Male	7	7																					
	A128 Congenital malformations of circulatory system	Female	13	13																					
	Male	35	34																						
	Female	23	21	1																					

TABLE 11: DEATHS, BY CAUSE AND SEX, BY MARITAL STATUS AND AGE, AND MONTH OF DEATH, ALBERTA, 1954

CAUSE OF DEATH (INTERMEDIATE LIST)	SEX	Total	Under 15 years	MARITAL STATUS										MONTHS												
				Single			Married			Widowed				Residual	January	February	March	April	May	June	July	August	September	October	November	December
				AGE																						
				AGE			AGE			AGE																
				15-24 years	25-44 years	45-64 years	65+	15-24 years	25-44 years	45-64 years	65+	15-24 years	25-44 years													
A129 All other congenital malformations	Male	42	39	1	1	1	1	1	1	1	1	1	2	4	2	5	3	3	5	4	4	4	4	5	5	
	Female	38	35	2	1	1	1	1	1	1	1	1	2	4	3	5	5	2	3	1	6	1	9	1	1	
XV. CERTAIN DISEASES OF EARLY INFANCY	Total	471	471	2	2	2	2	2	2	2	2	2	53	39	46	27	36	37	44	46	38	39	34	32	32	
	Male	283	283	1	1	1	1	1	1	1	1	1	33	20	30	17	26	21	26	26	19	24	19	22	22	
	Female	188	188	1	1	1	1	1	1	1	1	1	20	19	16	10	10	16	18	20	19	15	15	10	10	
A130 Birth injuries	Male	49	49	1	1	1	1	1	1	1	1	1	11	4	6	1	5	4	2	3	4	5	1	3	3	
	Female	35	35	1	1	1	1	1	1	1	1	1	4	5	3	1	3	1	5	1	4	4	4	4	4	
A131 Postnatal asphyxia and atelectasis	Male	80	80	1	1	1	1	1	1	1	1	1	7	6	8	4	10	7	9	4	6	7	6	6	6	
	Female	50	50	1	1	1	1	1	1	1	1	1	6	3	5	2	10	2	5	6	4	5	5	6	6	
A132 Infections of the newborn	Male	15	15	1	1	1	1	1	1	1	1	1	3	4	1	1	1	2	2	1	3	1	1	2	2	
	Female	13	13	1	1	1	1	1	1	1	1	1	2	1	1	2	2	1	2	1	3	1	1	1	1	
A133 Haemolytic disease of newborn	Male	10	10	1	1	1	1	1	1	1	1	1	2	1	2	1	1	2	1	1	1	1	1	2	2	
	Female	9	9	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	
A134 All other defined diseases of early infancy	Male	9	9	1	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	2	2	
	Female	9	9	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	
A135 Ill-defined diseases peculiar to early infancy, and immaturity unqualified	Male	120	120	1	1	1	1	1	1	1	1	1	8	5	13	9	8	10	12	17	9	9	11	9	9	
	Female	72	72	1	1	1	1	1	1	1	1	1	8	8	4	4	4	9	6	7	10	5	5	2	2	
XVI. SYMPTOMS, SENILITY, AND ILL- DEFINED CONDITIONS	Total	144	161	2	2	2	2	2	3	15	34	43	2	18	13	15	7	12	13	10	9	9	12	8	18	
	Male	104	111	1	1	1	1	1	2	11	31	22	2	14	10	10	4	8	9	5	6	8	7	15	15	
	Female	40	50	1	1	1	1	1	1	4	3	21	1	4	3	5	3	4	4	5	3	1	4	1	3	
A136 Senility without mention of psychosis	Male	28	28	1	1	1	1	1	1	1	11	12	1	5	3	5	1	1	3	3	2	2	4	2	2	
	Female	16	16	1	1	1	1	1	1	1	1	15	1	2	2	3	1	2	2	3	1	3	3	3	3	
A137 Ill-defined and unknown causes	Male	76	111	1	1	1	1	1	2	11	20	10	2	9	7	5	3	7	6	5	6	6	6	1	1	
	Female	24	5	1	1	1	1	1	1	4	2	6	2	3	1	2	2	4	2	2	3	1	1	1	1	
EXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORD- ING TO EXTERNAL CAUSE).	Total	746	136	92	47	31	25	15	138	108	56	69	15	53	59	43	48	49	67	75	61	52	93	86	60	
	Male	570	86	81	44	29	23	13	113	85	37	11	32	45	36	32	36	54	64	46	37	73	70	45	45	
	Female	176	50	11	3	2	2	2	25	23	19	37	21	14	7	16	13	13	11	15	15	20	16	15	15	
AE138 Motor vehicle accidents	Male	151	17	37	12	6	1	5	35	23	11	8	3	8	11	8	9	7	11	16	16	12	22	23	18	
	Female	49	12	8	2	2	2	1	11	7	4	2	2	7	2	2	4	3	4	7	3	3	5	7	7	



Traffic accidents	Male	157	15	36	12	6	1	5	35	23	10															
AEI39 Other transport accidents	Female	47	12	8	2	1	1	1	10	7	4															
AEI40 Accidental poisoning	Male	64	2	12	9	3	1	4	20	7	3															
AEI41 Accidental falls	Female	2	3	2	2	2	2	1	4	7	1															
AEI42 Accidents caused by machinery	Male	21	3	2	4	2	1	1	9	10	2															
AEI43 Accident caused by fire and explosion of combustible material	Female	52	3	4	4	10	2	1	5	1	11															
AEI44 Accident caused by hot substance, corrosive liquid, steam, and radiation	Male	50	2	4	2	1	1	1	9	10	2															
AEI45 Accident caused by firearm	Female	33	2	4	2	1	1	1	5	2	1															
AEI46 Accidental drowning and submersion	Male	26	3	3	1	2	4	1	5	2	1															
AEI47 All other accidental causes	Female	11	6	2	2	2	2	1	1	1	1															
AEI48 Suicide and self-inflicted injury	Male	75	31	6	7	3	1	2	9	10	1															
AEI49 Homicide and injury purposely inflicted by other persons (not in war)	Female	18	17	4	5	8	5	17	19	7	7															
AEI50 Injury resulting from operations of war	Male	24	2	2	1	1	1	1	2	1	1															
Female	6	1	1	1	1	1	1	1	2	1	1															
Female	1																									
NXVII. ACCIDENTS, POISONINGS AND VIOLENCE (CLASSIFICATION ACCORDING TO NATURE OF INJURY)	Total	746	136	92	47	31	25	15	138	108	56	2	12	69	15	53	59	43	49	67	75	61	52	93	86	60
ANI38 Fracture of skull	Male	570	86	81	44	29	23	13	113	85	37	1	11	32	15	32	45	36	36	54	64	46	37	73	70	45
ANI39 Fracture of spine and trunk	Female	176	50	11	3	2	2	2	25	23	19	1	1	37	2	21	14	7	16	13	11	15	15	20	16	15
ANI40 Fracture of limbs	Male	134	15	31	12	5	1	3	29	21	5	1	2	8	2	8	7	5	2	6	8	17	11	18	24	17
ANI43 Head injury (excluding fracture)	Female	33	12	5	1	1	1	1	7	3	1	1	1	3	1	2	4	1	1	3	1	4	1	6	3	2
ANI44 Internal injury of chest, abdomen, and pelvis	Male	24	1	3	3	2	2	1	4	3	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1
ANI45 Laceration and open wounds	Female	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANI46 Superficial injury, contusion and crushing with intact skin surface	Male	40	2	5	4	4	3	2	8	15	9	1	4	25	6	3	3	4	7	4	3	2	3	3	9	2
ANI47 Effects of foreign body entering through orifice	Female	57	7	5	4	3	2	2	5	2	2	1	2	8	2	2	2	2	3	6	2	5	3	3	4	2
ANI48 Burns	Male	14	10	14	9	5	3	4	30	22	7	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1
ANI49 Effects of poisons	Female	21	4	4	1	1	1	1	3	3	2	1	1	3	3	5	6	8	10	8	14	4	6	18	16	8
ANI50 All other and unspecified effects of external causes	Male	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	20	16	11	3	1	1	1	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Female	18	4	4	3	1	1	1	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Female	11	7	4	4	3	4	3	14	9	9	1	1	1	2	4	3	4	4	5	3	5	2	4	1	3	1
Female	49	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	12	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	119	28	18	10	5	2	4	21	9	3	9	2	2	8	3	3	7	5	11	5	23	18	19	6	10	7
Female	23	10	2	2	1	1	1	3	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

## VITAL STATISTICS BRANCH

TABLE 12: INFANT DEATHS AND HOSPITAL INFANT DEATHS BY OCCURRENCE AND  
RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1954

CENSUS DIVISION	Total Infant Deaths				Infant deaths in hospitals			
	Total by Occurrence	Total by Residence	By occurrence, residence elsewhere	By occurrence, residence elsewhere	Total by Occurrence	Total by Residence	By residence, occurrence elsewhere	By residence, occurrence elsewhere
ALBERTA .....	880	882	5	7	697	697	4	4
Division No. 1 .....	26	27	5	6	20	20	5	5
Division No. 2 .....	80	71	12	3	61	53	11	3
Division No. 3 .....	11	14	2	5	11	14	2	5
Division No. 4 .....	10	25	....	15	3	16	....	13
Division No. 5 .....	4	5	....	1	2	3	....	1
Division No. 6 .....	202	194	14	6	179	173	12	6
Division No. 7 .....	29	31	1	3	21	22	1	2
Division No. 8 .....	58	56	8	6	49	48	7	6
Division No. 9 .....	18	21	5	8	13	17	4	8
Division No. 10 .....	18	24	1	7	16	22	1	7
Division No. 11 .....	250	216	41	7	222	186	40	4
Division No. 12 .....	14	23	1	10	9	18	....	9
Division No. 13 .....	45	45	4	4	28	29	2	3
Division No. 14 .....	30	38	1	9	18	27	....	9
Division No. 15 .....	38	44	1	7	24	30	1	7
Division No. 16 .....	29	27	5	3	16	13	4	1
Division No. 17 .....	18	21	1	4	5	6	1	2

TABLE 13: INFANT DEATHS AND HOSPITAL INFANT DEATHS BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1954

City, town or village	Total Infant Deaths				Infant deaths in hospitals			
	Total by Occurrence	Total by Residence	By occurrence, Residence elsewhere	By residence, Occurrence elsewhere	Total by Occurrence	Total by Residence	By occurrence, Residence elsewhere	By residence, Occurrence elsewhere
Athabasca.....	6	2	4	1	6	2	4	1
Barrhead.....	1	1	1	1	1	1	1	1
Beverly.....	3	3	3	3	3	3	3	3
Black Diamond.....	1	4	3	3	1	4	3	3
Blairmore.....	6	4	4	2	5	4	3	2
Bonnyville.....	4	4	4	4	4	4	4	4
Bowness.....	9	3	6	9	9	3	6	9
Brooks.....	164	130	36	2	151	117	36	2
Calgary.....	5	3	2	5	5	3	2	5
Camrose.....	11	7	4	3	11	7	4	3
Cardston.....	1	1	1	1	1	1	1	1
Clareholm.....	1	1	1	1	1	1	1	1
Coleman.....	1	1	1	1	1	1	1	1
Didsbury.....	4	1	3	4	4	1	3	4
Drumheller.....	235	157	83	5	221	142	82	3
Edmonton.....	11	6	6	1	8	4	5	1
Edson.....	5	5	5	5	5	5	5	5
Forest Lawn.....	8	4	5	1	6	1	5	1
Fort Saskatchewan.....	3	2	1	2	2	1	1	2
Grande Prairie.....	11	4	9	2	10	3	9	2
Hanna.....	3	3	3	3	3	3	3	3
High Prairie.....	5	3	3	1	4	3	2	1
High River.....	4	14	1	11	11	1	11	1
Innisfail.....	9	4	5	9	9	4	5	9
Jasper Place.....	9	1	1	1	9	1	1	1
Lacombe.....	34	20	15	1	33	20	14	1
Leduc.....	1	1	1	1	1	1	1	1
Lethbridge.....	1	1	1	1	1	1	1	1
Lloydminster.....	3	3	3	3	3	3	3	3
Macleod.....	7	1	6	7	7	1	6	7
Magrath.....	20	11	10	1	18	9	10	1
McLennan.....	5	4	2	1	5	4	2	1
Medicine Hat.....	8	7	1	1	7	6	1	1
Olds.....	4	4	1	1	2	2	1	1
Peace River.....	3	2	1	1	3	2	1	1
Pincher Creek.....	3	2	1	1	3	2	1	1
Ponoka.....	2	2	2	2	2	2	2	2
Raymond.....	9	6	3	9	9	6	3	9
Redcliff.....	2	2	2	2	2	2	2	2
Red Deer.....	3	1	2	3	3	1	2	3
Redwater.....	6	2	4	6	6	2	4	6
Rocky Mountain House.....	11	6	5	11	11	6	5	11
St. Albert.....	4	4	4	4	4	4	4	4
St. Paul.....	2	2	1	1	3	2	1	1
Stettler.....	3	2	1	3	3	2	1	3
Taber.....	5	4	2	1	5	4	2	1
Three Hills.....	3	5	2	2	3	4	1	1
Vegreville.....	7	3	5	1	6	2	5	1
Vermilion.....	5	2	4	1	5	2	4	1
Vulcan.....	3	5	2	2	3	4	1	1
Wainwright.....	7	3	5	1	6	2	5	1
Westlock.....	5	2	4	1	5	1	4	1
Wetaskiwin.....	5	2	4	1	5	1	4	1





[illegible]

TABLE 15: CAUSES OF INFANT DEATH, BY SEX AND CALENDAR MONTH OF DEATH  
FOR ALBERTA, 1954

SELECTED CAUSES	Total Under 1 Year	MONTH OF DEATH																									
		Male						Female																			
		Total	Male	Female	January	February	March	April	May	June	July	August	September	October	November	December											
ALL CAUSES	882	510	372	59	38	40	33	41	38	44	30	41	23	32	30	44	32	45	40	35	27	48	31	31	23	50	27
Tuberculosis, all forms	5	1	4								2																
Syphilis	4	2	2																								
Dysentery, all forms	5	2	3																								
Scarlet fever																											
Erysipelas																											
Diphtheria																											
Whooping cough	6	5	1	3	1	2																					
Meningococcal infections	2	2		1																							
Measles	2																										
All malignant neoplasms																											
Hodgkin's disease																											
Leukaemia and aleukaemia																											
Benign neoplasms																											
Diseases of thymus gland	3	2	1	1	1																						
Mental deficiency	6	4	2																								
Meningitis (nonmeningococcal)	8	6	2																								
Otitis media	4	4																									
Acute upper respiratory infection	6	4	2																								
Influenza	3	2	1																								
Pneumonia (4 weeks and over)	76	39	37	5	5	4	4	2	5	4	3	3	3	1	4	2			2	4	1	4	5	1	2	2	4
Bronchitis	11	7	4	3																							2
Gastritis and duodenitis																											
Hernia and intestinal obstruction	3	1	2	1																							
Gastro-enteritis and colitis	571	22	17	4	1				2	3	3	1	3	3	3	1			3	2	3						2
Chronic enteritis and ulcerative colitis																											
Congenital malformations	135	70	65	4	3	3	4	4	5	7	9	4	3	4	5	7		8	9	5	3	10	11	8	2	8	4
Injury at birth —	84	49	35	11	4	4	5	6	3	1	1	5	3	4	1	2	5	3	4	4	5	4	1	4	4	3	
Without mention of immaturity	42	22	20	3	2	1	4	4	2		4		4	2		1	5	2	1	3	1	3	2	1	1	2	
With immaturity	42	27	15	8	2	3	1	2	1		1	1	3	2	2			1	1	3	1	3	3		2		2

[illegible]

TABLE 16: Deaths at all ages according to the International Abbreviated List of 50 causes

Int. list No.		CAUSES OF DEATH	Canada 1954	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Abbrev. list	Detailed list												
B 1		001-008 Tuberculosis of respiratory system.....	1299	85	6	64	44	576	279	56	30	45	114
B 2		010-019 Tuberculosis, other forms.....	263	20	4	12	7	138	28	15	12	18	9
B 3		020-029 Syphilis and its sequelae.....	179	3		7	5	53	64	10	6	15	16
B 4		040 Typhoid fever.....	7					4				1	
B 5		043 Cholera.....											
B 6		045-048 Dysentery, all forms.....	27			1		8	8		2	6	2
B 7		050-051 Scarlet fever and streptococcal sore throat.....	31			3		11	5	3	1	2	3
B 8		055 Diphtheria.....	18			1		15				2	
B 9		056 Whooping cough.....	96	1	2	7	6	57	14	2		2	
B 10		057 Meningococcal infections.....	102	6	1	2	7	41	24	5	1	8	7
B 11		058 Plague.....											
B 12		080 Acute Poliomyelitis.....	157		4	6		80	21	5	7	28	6
B 13		084 Smallpox.....											
B 14		085 Measles.....	118	11		7	4	58	19	1	2	6	10
B 15		100-108 Typhus and other rickettsial diseases.....											
B 16		110-117 Malaria.....											
B 17		030-039, 041, 042 044, 049, 052- 054, 059-074, 081-083, 086- 096, 120-138 All other diseases classified as infective and parasitic.....											
B 18		140-205 All malignant neoplasms.....	393	17	4	25	4	121	124	17	21	27	33
B 19		(201) Hodgkin's disease.....	19694	397	150	904	581	5258	7029	1128	997	1147	2103
B 20		(204) Leukaemia and aleukaemia.....	208	7	2	16	3	49	82	11	11	12	15
B 21		210-239 Benign and unspecified neoplasms.....	767	8	5	19	19	172	285	50	55	63	91
B 22		260 Diabetes mellitus.....	366	8	1	12	17	121	122	18	18	17	32
B 23		290-293 Anaemias.....	1607	10	7	84	45	515	571	70	82	112	111
B 24		330-334 Vascular lesions affecting central nervous system.....	323	11	4	22	11	92	108	19	19	14	23
B 25		400-402 Rheumatic fever.....	13732	313	134	725	489	2597	5905	767	674	842	1286
B 26		410-416 Chronic rheumatic heart disease.....	273	21	2	8	13	125	44	10	18	10	22
B 27		420-422 Arteriosclerotic and degenerative heart disease.....	202	6	3	8	4	92	54	11	4	9	11
B 28		430-434 Other diseases of heart.....	1584	37	11	62	38	420	577	74	95	101	169
B 29		440-443 Hypertension with heart disease.....	33810	358	262	1443	1098	6885	14351	1899	1714	1924	3876
B 30		444-447 Hypertension without mention of heart.....	1860	104	13	122	77	582	415	110	125	137	175
B 31		480-483 Influenza.....	4043	70	39	244	139	1323	1347	179	180	183	339
B 32		490-493 Pneumonia.....	972	32	11	45	27	386	236	53	46	66	70
B 33		500-502 Bronchitis.....	518	23	4	26	13	236	136	11	33	14	22
B 34		540-541 Ulcer of stomach and duodenum.....	4391	139	34	180	229	1172	1353	250	262	253	519
		550-553 Appendicitis.....	551	21	3	25	14	126	185	48	28	38	63
			749	10	4	30	17	175	273	37	41	48	114
			211	11	2	8	7	69	70	8	15	12	9





TABLE 17: Death rates per 100,000 population at all ages according to the International Abbreviated List of 50 causes, by provinces, 1954

Int. list No.		CAUSES OF DEATH										
Abbrev.	Detailed list	Canada 1954	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
B 1	001-008	8.6	21.4	5.7	9.5	8.0	13.1	5.5	6.8	3.4	4.3	9.0
B 2	Tuberculosis of respiratory system.....	1.7	5.0	3.8	1.8	1.3	3.1	0.6	1.8	1.4	1.7	0.7
B 3	Tuberculosis, other forms.....	1.2	0.8		1.0	0.9	0.1	1.2	1.3	0.7	1.4	1.3
B 4	Syphilis and its sequelae.....	2				0.2	0.1				0.1	0.1
B 5	Typhoid fever.....											
B 6	Cholera.....											
B 7	Dysentery, all forms.....	0.2			0.1		0.2	0.2		0.2	0.6	0.2
B 8	Scarlet fever and streptococcal sore throat.....	0.2			0.4	0.5	0.3	0.1	0.4	0.1	0.2	0.2
B 9	Diphtheria.....	0.1			0.1		0.3				0.2	
B 10	Whooping Cough.....	0.6	0.3	1.9	1.0	1.1	1.3	0.3	0.2		0.7	
B 11	Meningococcal infections.....	0.7	1.5	1.0	0.3	1.3	0.9	0.5	0.6	0.1	0.8	0.6
B 12	Plague.....											
B 13	Acute Poliomyelitis.....	1.0		3.8	0.9		1.8	0.4	0.6	0.8	2.7	0.5
B 14	Smallpox.....											
B 15	Measles.....	0.8	2.8		1.0	0.7	1.3	0.4	0.1	0.2	0.6	0.8
B 16	Typhus and other rickettsial diseases.....											
B 17	Malaria.....											
B 18	030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138, 140-205 (201) (204) 210-239 260 290-293 330-334 340 400-402 410-416 420-422 430-434 440-443 444-447 480-483 490-493 500-502 540-541 550-553	2.6 129.8 1.4 5.1 2.4 10.6 2.1 90.5 1.8 1.3 10.4 222.9 12.3 26.7 6.4 3.4 28.9 3.6 4.9 1.4	4.3 99.7 1.8 2.0 2.5 2.8 78.6 5.3 1.5 9.3 89.9 26.1 17.6 8.0 3.4 34.9 5.3 2.5 2.8	3.8 142.9 1.9 4.8 6.7 127.6 37.1 1.9 2.9 10.5 249.5 12.4 37.1 10.5 3.8 32.4 2.9 1.9	3.7 134.3 2.4 2.8 12.5 107.7 3.3 1.2 9.2 214.4 18.1 25.4 6.7 3.9 26.7 3.7 2.9 1.2	0.7 106.2 0.5 3.5 3.1 3.3 2.0 2.4 2.7 200.7 14.1 36.3 4.9 2.4 41.9 2.6 4.5 1.3	2.8 119.8 1.1 3.9 2.8 11.7 2.1 2.8 59.2 92.6 2.1 1.3 9.6 156.9 13.3 30.2 8.8 5.4 26.7 2.9 4.0 1.6	2.5 139.3 1.6 5.6 3.1 11.3 2.1 2.3 17.0 92.6 0.9 1.1 11.4 284.4 8.2 26.7 4.7 2.7 26.8 3.7 5.4 1.4	2.1 136.2 1.3 6.0 6.3 8.5 2.2 2.3 76.8 1.2 0.5 8.9 229.3 13.2 21.6 6.4 1.3 30.2 5.8 4.5 1.0	2.4 113.6 6.1 6.0 9.3 2.2 2.2 2.1 2.1 10.8 195.2 185.2 20.5 5.2 3.8 29.8 3.2 4.7 1.0	2.6 166.1 1.2 7.2 2.5 8.8 101.6 0.9 0.9 13.3 97 306.2 13.8 26.8 5.5 1.7 41.0 3.7 9.0 1.2	



TABLE 18: CERTAIN CAUSES OF DEATH, BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945
	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population	Number of Deaths Rate per 100,000 population
Diseases of the Heart.....	2345	2274	2227	2113	2046	2033	1896	1756	1721	1663
Cancer.....	1164	1129	1112	1065	997	957	975	878	860	830
Diseases of the Arteries.....	155	148	14	129	133	128	14	117	102	12
Violent Deaths (Suicides Excepted).....	623	667	589	568	573	596	593	484	456	38
Pneumonia (All Forms).....	253	324	32	341	275	376	362	374	362	369
Pulmonary Tuberculosis.....	45	51	5	119	137	155	200	215	233	200
Influenza.....	14	33	3	114	26	41	36	72	89	11
Nephritis.....	79	108	10	88	90	217	219	197	215	255
Appendicitis.....	12	15	1	18	22	23	24	36	4	5
Suicides.....	83	72	7	86	9	9	84	67	8	76
Cerebral Haemorrhage.....	842	851	84	756	693	666	568	523	503	513
Diabetes Mellitus.....	112	99	9	89	91	156	134	119	119	143
Diarrhoea and Enteritis.....	69	47	4	60	69	63	93	106	128	87
Puerperal Causes.....	11	21	2	15	2	25	29	32	3	5
Whooping Cough.....	7	12	1	7	3	5	11	9	19	43
Scarlet Fever.....	.....	5	.....	6	11	.....	.....	.....	1	1
Diphtheria.....	2	3	.....	1	.....	12	10	7	7	9
Typhoid and Paratyphoid.....	2	1	2	.....	.....	.....	.....	3	1	2
Measles.....	6	8	7	12	8	19	7	21	8	6
Polio-myelitis.....	28	108	10	8	8	9	28	7	8	.....

















[illegible]















774-776	775	774	773	772	771	770	769	768	767	766	765	764	763	762	761	760	759	758	757	756	755	754	753	752	751	750	749	748	747	746	745	744	743	742	741	740	739	738	737	736	735	734	733	732	731	730	729	728	727	726	725	724	723	722	721	720	719	718	717	716	715	714	713	712	711	710	709	708	707	706	705	704	703	702	701	700	699	698	697	696	695	694	693	692	691	690	689	688	687	686	685	684	683	682	681	680	679	678	677	676	675	674	673	672	671	670	669	668	667	666	665	664	663	662	661	660	659	658	657	656	655	654	653	652	651	650	649	648	647	646	645	644	643	642	641	640	639	638	637	636	635	634	633	632	631	630	629	628	627	626	625	624	623	622	621	620	619	618	617	616	615	614	613	612	611	610	609	608	607	606	605	604	603	602	601	600	599	598	597	596	595	594	593	592	591	590	589	588	587	586	585	584	583	582	581	580	579	578	577	576	575	574	573	572	571	570	569	568	567	566	565	564	563	562	561	560	559	558	557	556	555	554	553	552	551	550	549	548	547	546	545	544	543	542	541	540	539	538	537	536	535	534	533	532	531	530	529	528	527	526	525	524	523	522	521	520	519	518	517	516	515	514	513	512	511	510	509	508	507	506	505	504	503	502	501	500	499	498	497	496	495	494	493	492	491	490	489	488	487	486	485	484	483	482	481	480	479	478	477	476	475	474	473	472	471	470	469	468	467	466	465	464	463	462	461	460	459	458	457	456	455	454	453	452	451	450	449	448	447	446	445	444	443	442	441	440	439	438	437	436	435	434	433	432	431	430	429	428	427	426	425	424	423	422	421	420	419	418	417	416	415	414	413	412	411	410	409	408	407	406	405	404	403	402	401	400	399	398	397	396	395	394	393	392	391	390	389	388	387	386	385	384	383	382	381	380	379	378	377	376	375	374	373	372	371	370	369	368	367	366	365	364	363	362	361	360	359	358	357	356	355	354	353	352	351	350	349	348	347	346	345	344	343	342	341	340	339	338	337	336	335	334	333	332	331	330	329	328	327	326	325	324	323	322	321	320	319	318	317	316	315	314	313	312	311	310	309	308	307	306	305	304	303	302	301	300	299	298	297	296	295	294	293	292	291	290	289	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	273	272	271	270	269	268	267	266	265	264	263	262	261	260	259	258	257	256	255	254	253	252	251	250	249	248	247	246	245	244	243	242	241	240	239	238	237	236	235	234	233	232	231	230	229	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	213	212	211	210	209	208	207	206	205	204	203	202	201	200	199	198	197	196	195	194	193	192	191	190	189	188	187	186	185	184	183	182	181	180	179	178	177	176	175	174	173	172	171	170	169	168	167	166	165	164	163	162	161	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	141	140	139	138	137	136	135	134	133	132	131	130	129	128	127	126	125	124	123	122	121	120	119	118	117	116	115	114	113	112	111	110	109	108	107	106	105	104	103	102	101	100	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
Immaturity	Ill-defined and unknown causes	Inhalation and ingestion of food or other object	E921, E922	E924, E925	Accidental mechanical suffocation	E800, E962	All other accidents	Residuals	Class I (Infective and parasitic diseases)	Class III (Allergic, etc., diseases)	All other causes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													



TABLE 23: LIVE BIRTHS OF ALL INDIANS, BY MONTHS, 1954, ALBERTA

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Province of Alberta .....	1,459	137	121	119	129	120	113	115	118	128	115	116	128

TABLE 24: LIVE BIRTHS OF TREATY INDIANS, BY MONTHS, 1954, ALBERTA

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Province of Alberta .....	780	72	62	63	66	61	59	66	65	72	54	68	72

TABLE 25: LEGITIMATE AND ILLEGITIMATE BIRTHS OF ALL INDIANS (EXCLUSIVE OF STILLBIRTH) IN ALBERTA BY PLACE OF RESIDENCE OF MOTHER, 1954

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total.....	1459	729	730	1038	516	522	421	213	208

TABLE 26: LEGITIMATE AND ILLEGITIMATE BIRTHS OF TREATY INDIANS (EXCLUSIVE OF STILLBIRTHS IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHER, 1954

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total.....	780	377	403	556	261	295	224	116	108

TABLE 27: BIRTHS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, 1954

PLACE OF OCCURRENCE	PLACE OF RESIDENCE														
	Total occurrence	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	U.S.A.	Other
Total (residence) .....	436816	13653	2724	18907	16649	133178	136261	22248	24981	33593	32946	425	499	729	21
Newfoundland .....	13635	13614	1	9	1	3	4	4	.....	.....	.....	.....	.....	3	1
Prince Edward Island .....	2712	1	2694	1	6	5	4	.....	.....	.....	.....	.....	.....	.....	.....
Nova Scotia .....	18885	19	6	18793	29	5	25	.....	.....	2	2	.....	.....	243	3
New Brunswick .....	17034	2	11	44	16342	353	27	6	1	3	2	.....	.....	.....	.....
Quebec .....	131904	3	4	12	78	131542	197	1	1	6	3	.....	.....	52	4
Ontario .....	137365	8	9	41	30	1149	135729	40	23	17	19	1	2	288	9
Manitoba .....	22465	1	.....	3	.....	3	89	22028	226	14	13	1	5	81	1
Saskatchewan .....	25001	.....	.....	.....	1	.....	14	95	24599	258	22	.....	.....	12	.....
Alberta .....	33561	.....	.....	2	.....	.....	13	16	115	33253	123	4	16	19	.....
British Columbia .....	32796	.....	.....	.....	.....	3	9	6	9	27	32703	6	1	29	3
Yukon .....	436	.....	.....	.....	.....	.....	.....	.....	.....	1	22	413	.....	.....	.....
Northwest Territories .....	479	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	474	.....	.....
United States .....	543	5	.....	4	162	115	150	56	7	7	37	.....	.....	.....	.....



TABLE 28: LIVE BIRTHS AND LIVE BIRTHS IN HOSPITAL BY OCCURRENCE AND RESIDENCE FOR CENSUS DIVISIONS, ALBERTA, 1954

CENSUS DIVISIONS	Total births				Births in hospital			
	Total by occurrence	Total by residence,	by occurrence residence elsewhere	by residence, occurrence elsewhere	Total by occurrence	Total by residence	by occurrence residence elsewhere	by occurrence elsewhere
Alberta.....	33561	33593	308	340	31723	31765	294	336
Division No. 1.....	1247	1229	254	236	1213	1191	254	232
Division No. 2.....	2843	2430	466	53	2532	2125	457	50
Division No. 3.....	407	576	70	239	381	553	67	239
Division No. 4.....	499	988	15	504	477	965	15	503
Division No. 5.....	277	454	13	190	248	417	12	181
Division No. 6.....	7486	6941	714	169	7399	6848	711	160
Division No. 7.....	1003	994	90	81	811	819	71	79
Division No. 8.....	2723	2599	304	180	2580	2457	294	171
Division No. 9.....	645	808	80	243	479	656	63	240
Division No. 10.....	954	1247	86	379	924	1207	85	368
Division No. 11.....	10298	9695	892	289	10215	9599	880	264
Division No. 12.....	430	577	49	196	371	531	36	196
Division No. 13.....	1081	118	96	133	988	1022	92	126
Division No. 14.....	1254	1406	146	298	1166	1316	141	291
Division No. 15.....	901	999	52	150	785	886	47	148
Division No. 16.....	1196	1134	140	78	1036	976	134	74
Division No. 17.....	317	398	6	87	118	197	3	82

VITAL STATISTICS BRANCH

TABLE 29: LIVE BIRTHS AND HOSPITAL LIVE BIRTHS BY OCCURRENCE AND RESIDENCE FOR URBAN PLACES OF 1,000 POPULATION AND OVER, ALBERTA, 1954

City, town or village	Total live births				Live births in hospitals			
	Total by occurrence	Total by residence	By occurrence residence elsewhere	By residence, occurrence elsewhere	Total by occurrence	Total by residence	By occurrence residence elsewhere	By residence, occurrence elsewhere
Athabasca.....	219	43	181	5	215	43	177	5
Barrhead.....	217	58	170	11	217	58	170	11
Beverly.....	.....	134	.....	134	.....	134	.....	134
Black Diamond.....	.....	39	.....	39	.....	39	.....	39
Blairmore.....	2	62	.....	60	.....	60	.....	60
Bonnyville.....	234	80	161	7	233	78	161	6
Bowness.....	2	185	.....	183	1	184	.....	183
Brooks.....	263	84	182	3	247	80	170	3
Calgary.....	6262	4774	1562	74	6256	4770	1560	74
Camrose.....	492	186	312	6	492	186	312	6
Cardston.....	198	86	116	4	108	60	52	4
Claresholm.....	164	99	77	12	163	98	77	12
Coleman.....	5	78	.....	73	.....	73	.....	73
Didsbury.....	117	36	90	9	111	35	85	9
Drumheller.....	364	129	243	8	363	129	242	8
Edmonton.....	10109	7269	2941	101	10105	7263	2941	99
Edson.....	206	111	109	14	206	111	109	14
Forest Lawn.....	.....	76	.....	76	.....	76	.....	76
Fort Saskatchewan.....	1	72	.....	71	.....	71	.....	71
Grande Prairie.....	412	193	228	9	406	189	226	9
Hanna.....	174	74	103	3	173	74	102	3
High Prairie.....	357	91	277	11	353	90	274	11
High River.....	242	45	202	5	242	45	202	5
Innisfail.....	166	52	124	10	160	48	121	9
Jasper Place.....	.....	548	.....	548	.....	547	.....	547
Lacombe.....	296	82	221	7	293	81	219	7
Leduc.....	1	90	1	90	.....	90	.....	90
Lethbridge.....	1486	898	612	24	1485	891	612	18
Lloydminster.....	.....	107	.....	107	.....	107	.....	107
Macleod.....	90	81	25	16	82	78	19	15
Magrath.....	61	37	28	4	32	19	17	4
McLennan.....	225	31	198	4	221	31	194	4
Medicine Hat.....	839	522	333	16	839	522	333	16
Olds.....	233	78	166	11	232	76	166	10
Peace River.....	227	131	107	11	210	122	99	11
Pincher Creek.....	142	61	86	5	133	58	80	5
Ponoka.....	211	115	107	11	209	115	105	11
Raymond.....	115	76	48	9	83	47	44	8
Redcliff.....	.....	44	.....	44	.....	44	.....	44
Red Deer.....	631	423	228	20	630	422	228	20
Redwater.....	.....	85	.....	85	.....	84	.....	84
Rocky Mountain House.....	136	60	81	5	102	45	62	5
St. Albert.....	.....	44	.....	44	.....	44	.....	44
St. Paul.....	281	80	209	8	271	75	204	8
Stettler.....	343	166	188	11	341	164	188	11
Taber.....	376	141	245	10	374	140	244	10
Three Hills.....	115	60	64	9	105	52	62	9
Vegreville.....	228	78	155	5	228	78	155	5
Vermilion.....	188	82	114	8	183	81	110	8
Vulcan.....	161	46	120	5	161	46	120	5
Wainwright.....	233	109	130	6	206	95	117	6
Westlock.....	299	63	248	12	297	63	246	12
Wetaskiwin.....	360	137	234	11	351	132	230	11

TABLE 30: LIVE BIRTHS BY MONTHS IN ALBERTA, 1954

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Province of Alberta .....	33,593	2,635	2,512	2,904	2,851	2,971	2,897	2,996	2,927	2,899	2,699	2,615	2,687

TABLE 31: LIVE BIRTHS FOR CENSUS DIVISIONS BY TYPE OF ATTENDANCE, ALBERTA, 1954

ATTENDED BY	CENSUS DIVISIONS				
	Total	Physician	Nurse	Midwife	Unattended and not stated
Alberta.....	33593	32785	258	134	416
Division No. 1.....	1229	1200	7	20	2
Division No. 2.....	2430	2314	49	45	22
Division No. 3.....	576	574	1	1	1
Division No. 4.....	988	969	2	10	7
Division No. 5.....	454	453	1	1	1
Division No. 6.....	6941	6818	89	5	29
Division No. 7.....	994	990	1	4	1
Division No. 8.....	2599	2564	8	7	20
Division No. 9.....	808	790	3	2	13
Division No. 10.....	1247	1239	3	3	5
Division No. 11.....	9695	9655	12	1	27
Division No. 12.....	577	570	1	1	7
Division No. 13.....	1118	1060	1	5	52
Division No. 14.....	1406	1343	14	3	46
Division No. 15.....	999	919	18	2	60
Division No. 16.....	1134	1106	12	2	14
Division No. 17.....	398	221	39	28	110

TABLE 33: LIVE BIRTHS BY AGES OF PARENTS, ALBERTA, 1954

Age of Mother (years)	Age of father											Total born to married mothers	Born to unmarried mothers	Born to all mothers	
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over				Not stated
12 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
13 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	8
14 years.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	18	30
15 years.....	3	6	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	64	154
16 years.....	17	50	18	3	1	1	.....	.....	.....	.....	.....	.....	90	106	396
17 years.....	43	181	58	8	.....	.....	.....	.....	.....	.....	.....	.....	290	146	834
18 years.....	44	447	168	23	4	2	.....	.....	.....	.....	.....	.....	688	163	1320
19 years.....	52	703	320	72	8	2	.....	.....	.....	.....	.....	.....	1157	149	1597
20 years.....	22	802	472	121	20	7	2	1	1	.....	.....	.....	1448	135	1988
21 years.....	12	844	766	198	25	6	2	.....	.....	.....	.....	.....	1853	122	2224
22 years.....	6	798	943	269	66	16	3	.....	1	.....	.....	.....	2102	108	2254
23 years.....	4	592	1058	395	70	16	7	3	1	.....	.....	.....	2146	80	2325
24 years.....	1	418	1205	465	115	23	13	1	1	.....	2	1	2245	79	2132
25 years.....	1	233	1066	546	152	33	13	3	4	2	.....	.....	2053	55	2023
26 years.....	.....	137	973	619	169	46	13	6	1	.....	.....	4	1968	48	1941
27 years.....	.....	71	800	692	249	57	16	6	.....	1	1	1	1893	30	1849
28 years.....	2	43	641	703	293	98	28	7	3	.....	.....	.....	1819	21	1655
29 years.....	1	15	409	750	319	101	28	8	.....	1	1	2	1634	23	1568
30 years.....	.....	17	251	728	369	121	36	16	1	3	.....	3	1545	29	1328
31 years.....	.....	8	142	610	343	140	34	15	2	2	3	.....	1299	24	1345
32 years.....	.....	7	86	545	442	180	48	7	3	1	2	.....	1321	27	1217
33 years.....	.....	1	49	402	464	190	56	23	3	2	.....	.....	1190	23	1141
34 years.....	.....	2	35	296	431	231	85	28	6	2	1	1	1118	23	846
35 years.....	.....	.....	30	142	354	192	69	27	7	1	1	.....	823	16	720
36 years.....	.....	.....	14	90	279	198	86	26	8	2	1	.....	704	14	611
37 years.....	.....	.....	7	56	206	194	89	30	7	3	5	.....	597	12	577
38 years.....	.....	.....	5	35	180	208	87	41	8	1	.....	.....	565	13	433
39 years.....	.....	.....	4	21	111	154	90	25	11	3	1	.....	420	7	377
40 years.....	.....	1	1	5	59	159	94	39	4	4	3	1	370	6	241
41 years.....	.....	.....	1	10	32	99	65	20	2	3	3	.....	235	5	190
42 years.....	.....	.....	.....	2	17	68	59	18	11	7	2	1	185	1	120
43 years.....	.....	.....	.....	3	5	28	54	21	6	2	.....	.....	119	1	62
44 years.....	.....	.....	.....	1	3	13	25	12	6	.....	1	.....	61	4	37
45 years.....	.....	.....	1	.....	2	6	14	7	2	.....	.....	.....	33	1	27
46 years.....	.....	.....	.....	.....	.....	3	11	9	3	.....	.....	.....	26	.....	8
47 years.....	.....	.....	.....	.....	.....	1	3	1	2	1	.....	.....	8	.....	3
48 years.....	.....	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	3	.....	1
49 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	9
50 years and over.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....
Not Stated.....	.....	.....	2	2	1	.....	.....	.....	.....	1	.....	.....	6	3	.....
Total fathers.....	208	5378	9529	7812	4789	2593	1131	404	104	40	29	14	32031	1562	33593

## VITAL STATISTICS BRANCH

TABLE 32: LIVE BIRTHS IN INCORPORATED URBAN PLACES OF 1,000 POPULATION  
AND OVER BY TYPE OF ATTENDANCE, ALBERTA, 1954

City, town or village	Total	ATTENDED BY			
		Physician	Nurse	Midwife	Unattended and Not stated
Athabasca.....	43	43			
Barrhead.....	58	58			
Beverly.....	134	134			
Black Diamond.....	39	39			
Blairmore.....	62	62			
Bonnyville.....	80	80			
Bowness.....	185	185			
Brooks.....	84	84			
Calgary.....	4774	4772			2
Camrose.....	186	186			
Cardston.....	86	86			
Claresholm.....	99	99			
Coleman.....	78	78			
Didsbury.....	36	36			
Drumheller.....	129	129			
Edmonton.....	7269	7261	7		1
Edson.....	111	111			
Forest Lawn.....	76	76			
Fort Saskatchewan.....	72	72			
Grande Prairie.....	193	193			
Hanna.....	74	74			
High Prairie.....	91	91			
High River.....	45	45			
Innisfail.....	52	52			
Jasper Place.....	548	546	2		
Lacombe.....	82	81			1
Leduc.....	90	90			
Lethbridge.....	898	898			
Lloydminster.....	107	107			
Macleod.....	81	80			1
Magrath.....	37	35			2
McLennan.....	31	31			
Medicine Hat.....	522	522			
Olds.....	78	78			
Peace River.....	131	131			
Pincher Creek.....	61	61			
Ponoka.....	115	115			
Raymond.....	76	76			
Redcliff.....	44	44			
Red Deer.....	423	423			
Redwater.....	85	85			
Rocky Mountain House.....	60	60			
St. Albert.....	44	44			
St. Paul.....	80	80			
Stettler.....	166	166			
Taber.....	141	141			
Three Hills.....	60	60			
Vegreville.....	78	78			
Vermilion.....	82	82			
Vulcan.....	46	46			
Wainwright.....	109	109			
Westlock.....	63	63			
Wetaskiwin.....	137	137			





TABLE 35: MULTIPLE BIRTHS BY AGE OF MOTHER, ALBERTA, 1954

Age of mother (years)	Total children born	Single		Sets of twins				Sets of triplets			
		Liveborn	Stillborn	Both liveborn	Both stillborn	1 liveborn 1 stillborn		3 liveborn	3 stillborn	2 liveborn 1 stillborn	1 liveborn 2 stillborn
Total.....	34011	32807	396	380	2	16		3			1
12 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14 years.....	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
15 years.....	31	30	1	.....	.....	.....	.....	.....	.....	.....	.....
16 years.....	156	152	2	1	.....	.....	.....	.....	.....	.....	.....
17 years.....	405	388	9	4	.....	.....	.....	.....	.....	.....	.....
18 years.....	845	826	11	4	.....	.....	.....	.....	.....	.....	.....
19 years.....	1331	1304	11	8	.....	.....	.....	.....	.....	.....	.....
20 years.....	1610	1579	13	9	.....	.....	.....	.....	.....	.....	.....
21 years.....	2015	1969	26	9	.....	1	.....	.....	.....	.....	.....
22 years.....	2253	2183	26	20	1	1	.....	.....	.....	.....	.....
23 years.....	2276	2202	20	25	.....	2	.....	.....	.....	.....	.....
24 years.....	2343	2289	15	17	.....	1	.....	.....	.....	.....	1
25 years.....	2159	2083	27	23	.....	.....	.....	1	.....	.....	.....
26 years.....	2044	1976	21	22	.....	.....	.....	1	.....	.....	.....
27 years.....	1956	1904	14	18	.....	1	.....	.....	.....	.....	.....
28 years.....	1872	1807	23	21	.....	.....	.....	.....	.....	.....	.....
29 years.....	1672	1617	15	18	.....	2	.....	.....	.....	.....	.....
30 years.....	1584	1527	15	20	.....	1	.....	.....	.....	.....	.....
31 years.....	1347	1283	18	22	.....	1	.....	.....	.....	.....	.....
32 years.....	1364	1289	19	28	.....	.....	.....	.....	.....	.....	.....
33 years.....	1237	1185	18	15	.....	2	.....	.....	.....	.....	.....
34 years.....	1154	1101	11	19	.....	2	.....	.....	.....	.....	.....
35 years.....	858	802	10	22	1	.....	.....	.....	.....	.....	.....
36 years.....	730	684	10	18	.....	.....	.....	.....	.....	.....	.....
37 years.....	620	597	9	7	.....	.....	.....	.....	.....	.....	.....
38 years.....	587	547	10	15	.....	.....	.....	.....	.....	.....	.....
39 years.....	440	425	7	4	.....	.....	.....	.....	.....	.....	.....
40 years.....	387	367	10	5	.....	.....	.....	.....	.....	.....	.....
41 years.....	247	229	5	4	.....	1	.....	1	.....	.....	.....
42 years.....	194	188	4	1	.....	.....	.....	.....	.....	.....	.....
43 years.....	125	120	5	.....	.....	.....	.....	.....	.....	.....	.....
44 years.....	66	62	4	.....	.....	.....	.....	.....	.....	.....	.....
45 years.....	42	36	4	.....	.....	1	.....	.....	.....	.....	.....
46 years.....	27	25	.....	1	.....	.....	.....	.....	.....	.....	.....
47 years.....	10	8	2	.....	.....	.....	.....	.....	.....	.....	.....
48 years.....	4	3	1	.....	.....	.....	.....	.....	.....	.....	.....
49 years.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
50 years and over.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not Stated.....	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 36: MARRIAGES BY MONTH OF MARRIAGE, ALBERTA, 1954

Total .....	9,960
January .....	431
February .....	522
March .....	502
April .....	797
May .....	792
June .....	1,221
July .....	1,173
August .....	991
September .....	883
October .....	914
November .....	985
December .....	749

TABLE 37: MARRIAGES—AGES OF BRIDE BY AGE OF GROOM, ALBERTA, 1954

[illegible]

VITAL STATISTICS BRANCH

TABLE 38: MARRIAGES, MARITAL STATUS OF BRIDEGROOM BY STATUS OF BRIDE,  
ALBERTA, 1954

	Total Marriages	Bachelors and			Widowers and			Divorced men and		
		Spinsters	Widows	Divorced women	Spinsters	Widows	Divorced women	Spinsters	Widows	Divorced women
Alberta.....	9960	8522	248	329	119	205	46	309	76	106

TABLE 39: MARRIAGES, MARITAL STATUS BY AGE OF BRIDEGROOM, ALBERTA, 1954

Age	Total	Bachelors	Widowers	Divorced men
Under 20 years .....	452	452	.....	.....
20-24 years.....	4577	4562	5	10
25-29 years.....	2732	2647	12	73
30-34 years.....	924	786	20	118
35-39 years.....	445	313	29	103
40-44 years.....	255	138	37	80
45-49 years.....	182	89	35	58
50-54 years.....	122	56	48	18
55-59 years.....	84	29	39	16
60-64 years.....	60	10	38	12
65-69 years.....	62	14	46	2
70-75 years.....	45	2	42	1
75 and up.....	20	1	19	.....
Not Stated.....	.....	.....	.....	.....
Total.....	9960	9099	370	491

TABLE 40: MARRIAGES, MARITAL STATUS BY AGE OF BRIDE, ALBERTA, 1954

AGE	Total	Spinsters	Widows	Divorced Women
Under 20 .....	3,027	3,025	2	.....
20 - 24 .....	4,131	4,065	18	48
25 - 29 .....	1,367	1,196	40	131
30 - 34 .....	554	378	57	119
35 - 39 .....	304	168	63	73
40 - 44 .....	185	59	80	46
45 - 49 .....	141	40	65	36
50 - 54 .....	85	11	58	16
55 - 59 .....	62	3	52	7
60 - 64 .....	38	5	29	4
65 - 69 .....	45	.....	44	1
70 - 74 .....	15	.....	15	.....
75+ .....	6	.....	6	.....
Not stated .....	.....	.....	.....	.....
TOTAL .....	9,960	8,950	529	481







[illegible]

TABLE 43: STILLBIRTHS BY SEX AND PERIOD OF GESTATION, ALBERTA, 1954

PERIOD OF GESTATION	Male	Female
28 weeks .....	18	12
29 weeks .....	5	2
30 weeks .....	19	15
31 weeks .....	3	6
32 weeks .....	17	15
33 weeks .....	6	3
34 weeks .....	14	11
35 weeks .....	6	6
36 weeks .....	28	23
37 weeks .....	8	8
38 weeks .....	23	18
39 weeks .....	12	7
40 weeks .....	58	43
41 weeks .....	5	5
42 weeks .....	6	2
43 weeks .....	2	4
44 weeks .....	.....	.....
45 weeks .....	.....	.....
46 weeks .....	.....	.....
47 weeks .....	.....	.....
48 weeks .....	1	.....
49 weeks .....	.....	.....
Not stated .....	4	3
TOTAL .....	235	183

TABLE 44—RATIO OF MALE TO FEMALE BIRTHS, AND OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1905 .....	1,059	3.13	1930 .....	1,027	3.21
1906 .....	1,094	2.07	1931 .....	1,075	3.25
1907 .....	1,075	2.96	1933 .....	1,052	3.08
1908 .....	1,077	2.73	1933 .....	1,053	3.01
1909 .....	1,086	2.59	1934 .....	1,032	3.04
1910 .....	1,065	2.69	1935 .....	1,055	2.81
1911 .....	1,103	2.43	1936 .....	1,049	2.57
1912 .....	1,084	2.43	1937 .....	1,019	2.38
1913 .....	1,053	2.67	1938 .....	1,046	2.70
1914 .....	1,081	3.30	1939 .....	1,046	2.85
1915 .....	1,000	3.74	1940 .....	1,033	2.79
1916 .....	1,063	3.29	1941 .....	1,054	2.71
1917 .....	1,061	3.25	1942 .....	1,058	3.02
1918 .....	1,069	1.88	1943 .....	1,041	2.96
1919 .....	1,074	2.56	1944 .....	1,060	3.06
1920 .....	1,055	2.92	1945 .....	1,061	3.08
1921 .....	1,055	3.32	1946 .....	1,036	3.36
1922 .....	1,034	3.06	1947 .....	1,061	3.76
1923 .....	1,072	3.13	1948 .....	1,049	3.44
1924 .....	1,036	2.97	1949 .....	1,051	3.52
1925 .....	1,036	2.97	1950 .....	1,052	3.74
1926 .....	1,053	2.80	1951 .....	1,039	3.76
1927 .....	1,065	2.94	1952 .....	1,058	3.95
1928 .....	1,064	2.75	1953 .....	1,063	4.10
1929 .....	1,042	2.71	1954 .....	1,073	4.60



TABLE 45: DIVORCES AND NULLITIES, BY JUDICIAL DISTRICTS, FOR THE YEAR 1954, ALBERTA

Judicial Districts	Divorces			Nullities		
	Number of Divorces	Granted to Husband	Granted to Wife	Number of Nullities	Granted to Husband	Granted to Wife
Edmonton .....	295	115	180	1	....	1
Calgary .....	248	77	171	2	....	2
Lethbridge .....	26	11	15	....	....	....
Medicine Hat .....	7	5	2	1	....	1
Peace River .....	....	....	....	....	....	....
Grande Prairie .....	1	1	....	....	....	....
Hanna .....	4	3	1	....	....	....
Red Deer .....	14	7	7	....	....	....
Drumheller .....	1	1	....	....	....	....
Fort Macleod .....	7	3	4	....	....	....
Wetaskiwin .....	5	2	3	....	....	....
<b>TOTAL</b> .....	<b>608</b>	<b>224</b>	<b>384</b>	<b>4</b>	<b>....</b>	<b>4</b>

## DIVORCES IN ALBERTA SINCE THE PASSING OF THE ACT

Year	Granted to Husband	Granted to Wife	Total
1919 .....	3	3	6
1920 .....	74	26	100
1921 .....	53	37	90
1922 .....	80	49	129
1923 .....	57	32	89
1924 .....	66	53	119
1925 .....	59	42	101
1926 .....	79	75	154
1927 .....	83	66	149
1928 .....	91	84	175
1929 .....	77	71	148
1930 .....	64	87	151
1931 .....	69	87	156
1932 .....	68	81	149
1933 .....	56	79	135
1934 .....	62	106	168
1935 .....	74	135	209
1936 .....	74	135	209
1937 .....	102	139	241
1938 .....	105	162	267
1939 .....	104	163	267
1940 .....	119	154	273
1941 .....	135	176	311
1942 .....	179	201	380
1943 .....	190	223	413
1944 .....	245	243	488
1945 .....	302	273	575
1946 .....	494	480	974
1947 .....	404	478	882
1948 .....	302	357	659
1949 .....	262	332	594
1950 .....	249	311	560
1951 .....	255	334	589
1952 .....	239	391	630
1953 .....	228	375	603
1954 .....	224	384	608

TABLE 46: POPULATION, BIRTHS, MARRIAGES, DEATHS, AND RATES FOR THE YEARS 1905-1954

Year	Population	Number of Births	Birth Rate	No. of Births Received to date	Number of Marriages	Marriage Rate	Number of Deaths	Death Rate	Infantile Death Rate per 1,000 Births	Puerperal Death Rate per 1,000 Births	Natural Increase
1905	185,000	421	20.41	4,135	187	6.77	114	7.36	90.00	-----	13.04
1906	236,000	3,003	20.05	4,816	927	8.08	1,091	6.88	100.27	6.33	13.36
1907	4,732	4,732	22.45	6,029	1,907	7.63	1,578	8.22	126.57	6.02	14.22
1908	266,000	5,973	22.91	7,632	2,032	7.92	2,188	8.81	-----	-----	14.07
1909	301,000	6,897	22.91	8,090	2,384	9.18	3,526	10.49	129.49	8.63	14.00
1910	336,000	8,321	24.49	9,602	3,086	9.70	3,618	9.67	134.46	9.75	13.88
1911	8,813	8,813	23.56	10,906	3,630	9.70	3,618	10.58	124.75	8.26	15.13
1912	400,000	10,284	25.71	12,780	4,429	11.07	4,232	10.63	120.47	7.07	17.84
1913	11,871	11,871	28.47	14,681	5,053	12.12	4,432	9.32	100.54	6.13	21.43
1914	459,000	13,685	30.75	16,423	4,623	10.39	4,417	7.73	87.9	5.79	21.26
1915	480,000	13,452	28.90	16,988	4,202	9.06	3,588	8.18	90.5	7.20	18.69
1916	496,000	13,331	27.87	15,592	4,230	8.53	4,058	8.09	87.30	6.48	18.92
1917	508,000	13,576	27.01	15,587	4,270	8.54	4,047	13.86	107.10	5.51	11.86
1918	522,000	14,890	25.72	16,797	4,048	6.98	7,924	9.33	110.30	6.44	14.62
1919	565,000	16,565	23.95	16,291	4,718	7.90	5,507	9.15	93.70	8.38	17.57
1920	588,000	16,414	25.72	18,934	5,110	8.24	5,675	8.39	85.65	7.24	19.50
1921	592,000	16,163	26.44	18,217	4,661	7.92	4,940	8.62	91.93	6.68	17.83
1922	593,000	15,153	25.75	17,440	4,272	6.99	5,281	8.06	90.54	5.50	18.75
1923	597,000	14,598	24.74	16,391	4,177	6.09	4,843	8.30	82.40	6.18	16.42
1924	602,000	15,014	25.02	15,619	4,160	7.50	4,907	7.86	72.90	5.76	16.16
1925	608,000	14,455	23.79	15,859	4,363	7.27	4,717	8.49	81.63	5.82	15.31
1926	623,000	14,897	24.03	15,468	4,498	7.40	5,156	8.16	74.51	6.38	15.87
1927	658,000	15,692	24.79	16,513	4,707	9.12	5,059	9.00	76.50	6.75	15.79
1928	684,000	16,924	26.19	17,715	5,776	9.29	5,699	9.65	77.40	7.26	16.54
1929	708,000	17,649	26.74	18,492	6,004	8.08	6,239	8.33	63.57	6.46	18.41
1930	732,000	17,252	23.57	18,160	5,334	7.02	5,396	7.24	69.38	5.04	16.32
1931	740,000	16,990	22.96	18,854	5,142	6.83	5,302	7.46	58.68	3.76	15.50
1932	748,000	16,123	21.33	16,991	5,054	7.10	5,321	7.07	59.90	4.43	14.24
1933	756,000	16,236	21.10	17,069	5,389	7.87	5,346	6.93	54.89	4.99	14.01
1934	770,000	16,183	21.0	17,014	6,053	7.7	5,337	7.3	57.8	4.2	14.0
1935	772,782	15,786	20.4	16,462	6,010	7.8	5,729	8.0	60.0	5.8	12.5
1936	783,000	15,903	20.4	16,516	6,345	8.2	6,147	8.0	63.0	4.9	12.4
1937	788,000	15,891	20.3	16,502	6,345	8.2	6,261	8.0	63.0	4.9	12.4
1938	788,000	15,891	20.3	16,502	6,345	8.2	6,261	8.0	63.0	4.9	12.4
1939	790,000	16,470	20.9	16,924	6,738	8.9	6,261	7.5	51.0	4.3	12.8
1940	796,169	17,359	21.8	17,733	8,782	11.8	5,789	7.3	46.0	3.5	13.6
1941	805,000	18,317	22.7	18,568	9,034	11.2	6,203	7.8	48.0	3.9	14.1
1942	792,000	19,290	24.3	19,495	7,771	9.8	6,385	8.0	51.0	3.6	13.7
1943	-----	-----	-----	-----	-----	-----	6,091	7.5	38.0	2.3	15.2
-----	-----	-----	-----	-----	-----	-----	7,345	7.6	30.0	0.5	22.4

1944	818,000	19,373	23.7	19,491	7,299	9.8	6,524	8.2	42.0	2.7	16.1
1945	826,000	19,939	24.1	20,072	7,310	8.9	6,320	7.7	46.0	1.6	16.0
1946	803,330	22,184	27.6	22,294	9,478	8.8	6,454	7.8	43.0	2.4	16.2
1947	822,000	24,631	30.0	24,708	8,777	11.8	6,601	8.2	42.5	1.4	19.3
1948	846,000	24,075	28.5	24,077	8,844	10.7	6,543	8.0	37.0	0.9	22.0
1949	871,000	24,935	28.7	24,962	9,037	10.5	6,987	8.0	39.0	1.2	20.2
1950	895,000	25,625	28.7	25,672	9,294	10.4	7,083	8.2	33.0	1.0	20.5
1951	937,501	27,003	28.7	27,041	9,305	10.4	6,856	7.7	32.0	0.7	21.0
1952	970,000	29,105	31.3	29,042	9,514	10.1	7,646	7.6	30.0	0.6	21.1
1953	1,002,000	31,376	31.3	31,351	10,126	9.9	7,167	7.6	30.0	0.6	21.1
1954	1,039,000	33,593	32.3	33,629	9,960	9.6	7,520	7.2	26.0	0.3	22.3









